

Organizations and Resources for Environmental Education in The Gambia

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EXECUTIVE SUMMARY

A short study was conducted to obtain information on organizations and resources for Environmental Education and Communication (EE&C), and to identify possible strategies for future EE&C initiatives. The purpose of the study was to assist the National Environment Agency to take appropriate initiatives towards the fulfillment of the Environmental Education and Communication objectives of the Gambia Environmental Action Plan.

Site visits to headquarters and to field offices of organizations and agencies engaged in environmental education were made to interview those who are planning or carrying out the work, and when possible, to speak to those who are the recipients.

Past and present environmental education activities undertaken by governmental and non-governmental organizations were studied to examine how the work was done, by whom, to which target groups, and with what kind of resources. Probing questions were used to inquire about existing resources, lessons learned, and about possible opportunities for future environmental education and communication activities.

The major findings were as follows: (1) There is no common understanding of what environmental education means or entails; (2) Most of the organizations contacted had some aspect of environmental education in their mandates, and were carrying this out to the best of their abilities; (3) With a few exceptions, the main activities of those contacted were aimed at achieving increased agricultural productivity, income generation, credit and savings, literacy, construction, technology-transfer, improved health and nutrition. Environmental education is a secondary or additional activity, although it was noted that recently, it seems to be achieving more importance with some of the organizations, i.e Peace Corps; (4) Although there is a good mix of methods and approaches, including traditional drama, there is very little evidence that the methods and materials used for environmental education have been tested and evaluated. An exception to this is the TIPE Project which is presently running a pilot project for primary grades 4 and 5 materials on drought and decertification.(5) Environmental education, as such, has not been integrated into tertiary education, but it is included in some of the agriculture and science programs, and as a component in the Gambia College School of Education's social and environmental studies subject area. Also there is great interest in EE for the other students of the College; (6) Some environmental education is included in primary level subjects, e.g. science and agriculture, and specially in social and environmental studies. However, the emphasis in the textbooks is on social studies. There was no evidence of activity-based EE in the schools which were visited; (7) Resources for environmental education and communication have been produced, but they are hard to locate and to access. More are also required.

This report is presented as follows: Section 1 provides the rationale for this assignment and the terms of reference for the consultant. Section II provides a list of organizations and agencies which are in place, and are either presently engaged or could be, in environmental education activities. This section includes the resources which were identified in each case, some of the lessons learned in the course of the organization's work, and possibilities which were perceived during the interviews

for future EE&C. Section III contains the general findings of the study. Section IV presents a list of suggested strategies (including examples of specific steps which can be used to carry out such activities, and criteria which can be used to prioritize future EE&C initiatives. Next, applying these criteria, some of the suggested strategies are prioritized. Section V consists of a Gant chart, presenting a proposed 12-month time frame for NEA to use in implementing, and in some cases, for beginning to implement some of the suggested activities which have been identified as being priorities.

Another aspect of the consultancy, was the development of a plan for a National Environmental Award Scheme which is being facilitated by the National Environmental Agency. This plan is found in Annex A.

Every opportunity was taken during the survey to obtain EE resource materials for the Documentation Center. A list of those obtained is provided in Annex C.

SECTION I

THE NATIONAL ENVIRONMENT AGENCY AND ENVIRONMENTAL EDUCATION

A. Introduction

The Gambia's commitment to the protection of its environment, its flora and fauna was made known throughout the world through the famous Banjul Declaration of 1977. Since then, many steps, big and small, have been taken in the pursuit of this goal. The development of The Gambia's Environmental Action Plan (GEAP) 1992-2001, and the establishment of the National Environmental Agency with an impressive mandate under the Office of the President, are two new developments which have taken place through a consensus building approach which has involved all sectors of the community in the process.

In line with these developments, a cooperation program, the Agriculture and Natural Resources (ANR) Project was negotiated with USAID to provide support for both sectoral and cross sectoral programs. The ANR Project supports a range of activities related to natural resource management at both the national policy and community levels. One of the ANR components which cross-cuts these activities is the environmental education and communication (EE&C) component; it is being facilitated through the "GreenCOM " Project.

The following diagram illustrates the cross-sectoral nature of the EE&C component in relation to the ANR Project and to the three main areas of the GEAP, i.e. Energy, Health and Natural Resources.

The environmental education and communication component of the cooperation program is being promoted and coordinated by the National Environment Agency in accordance with the GEAP mandate. It is doing this, in collaboration with "GreenCom", a USAID Project with a unique, and also participatory, approach to environmental education and communication. GreenCOM's 'Heating Up' approach is aimed at mobilizing all sectors and levels of the community through the development of a sound 'pattern of thinking' which will enable constructive changes towards the environment to take place.

One of the first steps being taken by the National Environmental Agency in the EE&C initiative, is to identify the institutions, organizations, individuals and other resources which are presently engaged, or could be engaged, in EE&C. The process began with a five-week study conducted in November, 1993, which provided a broad picture of the resources available.

This report presents the results of a follow-up 4-week consultancy in January-February, 1994, to continue the study of resources for EE&C, but which also focused on identifying strategies, setting the stage for a nation-wide Environmental Award Scheme, and contributing to preliminary planning for the launching of the Environmental Education Working Group called for by the National Environment Management Council.

B. Consultancy Terms of Reference

This consultancy is part of a long-term Project, the USAID Environmental Education and Communication (GreenCOM) Project, whose purpose is to assist the Government of the Gambia to achieve its natural resource management goals through improved Environmental Education and Communication (EE&C) strategies.

The assignment, from January 12th to February 9th, 1994, was designed to provide input on specific strategies and activities which could be incorporated into a national EE&C program under the aegis of the National Environment Agency.

Specifically, the tasks for this assignment were to:

- * Examine past EE&C efforts in the Gambia, and identify lessons learned and opportunities for follow-up.
- * Identify national EE&C resources, and assess their ability and potential role in contributing to GreenCOM's objectives. Such resources would include governmental and non-governmental agencies institutions and agencies and development projects; and
- * Assess the need and potential for various EE&C activities and proposed strategies.

One of the initial steps taken by the consultant upon arrival in The Gambia was to review the terms of reference and scope of work with the local USAID Mission and with NEA. It was decided to add one more activity to the terms of reference, and that was to assist with the development of a

plan for the implementation of a National Environmental Award Scheme to be facilitated by the National Environment Agency.

The methods which were used to carry out the tasks of the consultancy consisted mainly of personal visits to the various institutions, interviews (with open-ended questions) and observations. Verification was primarily done through cross-checking questions, seeking actual resources, and through some on-site visits. Several documents, including the Gambia Environmental Action Plan (GEAP), served as reference materials.

Efforts were made to obtain EE materials, which have been, or are being produced by the organizations which were visited. These materials were listed, and placed in the NEA Documentation Center in a newly-established Environmental Education section. Also, any EE formal training needs for specific job requirements which were identified during the course of the visits were referred to the ANR training needs consultant.

The consultant took active part in many informative conferences and meetings. Among these were the following: (1) meeting of the Environmental Education Advisory Committee of the Kwang West National Park, (2) meeting with the Director and professional staff of Peace Corps, and (3) meeting of the Advisory Committee of the Off Farming Productivity Enhancement Program (OFPEP).

Throughout the assignment, the consultant worked in consultation with NEA's Executive Director, and on a day-to-day basis with NEA's Environmental Education Officer.

C. Limitations

This consultancy was timely. However, the actual dates coincided with three consecutive workshops of major importance to NEA's Environmental Education, Communication and Research component. These were: (1) "Launching of the Natural Resources Working Group", (2) USAID 'Management of Natural Resources Conference', and (3) "Launching of the Environment Information Systems Working Group". The heads or representatives of the governmental and non-governmental bodies dealing with natural resources participated in all three of these important events. This made it difficult to schedule appointments, and to conduct follow-up visits.

Another constraint was the shortage of printed materials about the organizations being surveyed. It was thus necessary to rely largely on interviews and visits to collect and verify data on resources. This created a time constraint.

Nevertheless, thanks to the wonderful cooperation which the consultant received throughout the assignment, the major governmental and non-governmental organizations involved with EE&C were contacted, and very useful information obtained.

D. Environmental Education

It was very evident, early on in this consultancy, that the people who are engaged in EE&C have very different ideas about what 'environmental education' means. This is not surprising because environmental education has been evolving for many years.

At two of the first international conferences on environmental education (Belgrade 1975, and Tbilisi, 1977), the following definition was ratified, and objectives set:

Environmental education is defined as "a process aimed at developing a world population that is aware of, and concerned about the total environment and its associated problems, and which has the knowledge, attitudes, skills, motivation, and commitment to work individually and collectively toward solutions of current problems and the prevention of new ones."

The five main objectives of environmental education are:

Awareness: Help people acquire an awareness and sensitivity to the total environment and its problems; develop the ability to perceive and discriminate among stimuli; internalize and extend these perceptions; and use this new ability in a variety of contexts.

Knowledge: Help people acquire a basic understanding about how the environment functions, how people interact with the environment, how environmental issues and problems arise, and how they can be resolved.

Attitudes: Help learners acquire a set of values and feelings of concern for the environment, and the motivation and commitment to take action to maintain and enhance the environment.

Skills: Assist people acquire the skills needed to identify and investigate environmental problems, and to contribute to their resolution.

Participation: Assist people obtain experience in using their acquired knowledge and skills in taking thoughtful positive actions towards the solution of environmental problems.

This definition and objectives for EE are the ones which are generally accepted, although there are still widely-held views on what constitutes environmental literacy. What is important for EE practitioners to keep in mind is that EE is **not** a subject, but a process which takes place over a long period of time, across a wide range of subjects and experiences.

SECTION II

ORGANIZATIONS AND RESOURCES FOR ENVIRONMENTAL EDUCATION

A. The Survey

A survey was conducted to identify existing governmental and non-governmental organizations and agencies in The Gambia which may be involved now, or which might be involved in the future, in some aspect of environmental education.

After consultation with the National Environment Agency's Environmental Education Officer, a list of approximately thirty agencies and organizations was drawn up. Appointments were set up through the Agency, and throughout the consultancy, an average of three to four visits were made per day.

Each visit varied somewhat according to the type and facilities of the organization concerned. The consultant asked open-ended questions, sometimes asking for more specific information or cross checking information from another source. Questions about resources were followed up with requests to see the materials, and to inquire where it could be obtained for NEA's Documentation Center. In this manner, some of the materials produced by various organizations were obtained for more careful review and to stock an Environmental Education section in the Documentation Center. Where possible, more than one person from each organization was contacted.

The results of these visits are presented in this section, using a similar format for each organization. It must be pointed out that efforts were made not only to find out information about the environmental education activities of the organization, but rather about the organization itself.... its main purpose, manpower, resources, main types of activities, and lessons learned in the course of its work. The reason this was done is because any future participation by that organization in national environmental education endeavors, will depend on what that organization considers to be important, on what manpower and other resources it has, on how it operates in the field, and on whether it sees now, or is likely to see, environmental education as part of its mandate.

The government departments or agencies are listed first. Then, the non-governmental organizations follow.

B. Government Departments and Agencies:

Organization: BOOK PRODUCTION AND MATERIALS RESOURCE UNIT (BPMRU)

Contact Person: Head

Address: BPMRU, Ministry of Education, Banjul

Telephone: 370079

Type: Government

Size: Staff of 30 for printing, publishing and distribution

Target Population: Government Ministries, Agencies, and Private Sector

Main Purpose: To print, publish and distribute text-books, teachers resource books and other educational materials. The Unit produces printed materials on contract for other organizations.

Activities/Comments:

The Unit is well-conceived and managed. It was built with Africa Development Bank funds, and the World Bank also provides financial support. The facilities are spacious and modern. It includes a graphics department, a photographic reproduction system for producing plates, a computer center, and a separate maintenance room, all in operation. New equipment has been ordered to expand activities with assistance from the World Bank. It is expected that by 1996, the Unit will then have the capacity to produce textbooks and teachers manuals for the country.

This Unit is under the Director of Educational Services who also has the responsibility for textbook and educational materials distribution to all the schools. A rental system (book revolving fund) was instituted in 1991, whereby the books are rented by students for 3 years. The cost for all books is D20 per student per year.

Resources:

There is a large room used as a resource center. It contains an archives section of some of the previous publications and also several shelves of reference materials. There are plans to add additional books to the center.

Lessons Learned:

- * A central agency for production and distribution of educational materials results in closer control and greater cost effectiveness.

- * Constraints arise when the demand exceeds the capacity of the Unit. Presently, the Unit cannot produce all the textbooks and other educational materials. It primarily produces the teachers guides.
- * The skills (i.e. graphics, desk-top publishing, off-set printing, compilation) are available in-country for the production of educational materials.
- * The Unit is still not self-sustaining although it is working towards that goal.

Opportunities for Follow-Up EE&C

- * The BPMRU offers the opportunity for production and distribution of textbooks for Social and Environmental Studies. Therefore, the possibility of making an input to formal education via textbooks depends on the success of BPMRU's book production and distribution system.
- * Technical skills in the production of formal education materials in the environment will enhance on-going efforts

Organization: HEALTH EDUCATION UNIT

Contact Person: Head

Address: Health Education Unit, Medical Headquarters, Banjul

Telephone: 28624

Type: Government, national

Size: 6 professional and 6 support staff

Target Population: General public (urban and rural)

Main Purpose: Directing health promotion activities. 'Also has a role in the formulation of health education policies. The goal is to reduce illness and promote health in The Gambia.

Activities: Produces and delivers health education messages, using a multi-media approach. The Unit works in conjunction with health workers, nurses, doctors, public health inspectors and community health workers. It carries out in-service training and produces materials as needed. The Unit is 1 out of 12 to 13 specialized sections in the Ministry, but it works to provide an education service to all the other sections. Some specific activities include:

- * Film/video production - i.e. last year, working in conjunction with the National Aids Program, it produced a video on AIDS.
- * Materials production - as required by other sections of the Ministry of Health, the Unit designs materials, such as posters and stickers, and then contracts printing outside the Ministry.
- * Use of radio - this medium is being used to supplement the work of health workers. Radio time is negotiated with Radio Gambia and occasionally with one of the two private radio stations.
- * Use of traditional media - occasionally, the Unit hires drama groups to use drama and animation to deliver the health messages.

Resources: It has some archival material, but no materials for immediate distribution.

Lessons Learned:

- * The Health Education Unit and the Public Health Inspectorate are the two sections of the Ministry of Health which are specifically active in Environmental Education and Communication.

- * A major constraint in using radio to deliver health education is that the programs are recorded in the studio, and listeners do not identify well with formal-talk programs.
- * The use of traditional media, i.e. drama has been found to be very effective, but employing drama groups tends to be costly.
- * The lack of space, resources, and specialized skills, e.g. graphic arts, are constraints in carrying out the functions of the Unit.

Opportunities for Further EE&C:

- * There is a possibility for more and better use of radio as a medium for outreach. Specifically, resources for recording in the field, and the technical skills for production of scripts, etc. would give a good boost to on-going efforts.
- * A possible means for making use of traditional media, i.e. drama, might be to use local school resources (building, staff and children) to participate in environmental health education through drama, music, etc.
- * Technical assistance to help collect and classify existing environmental health materials, would assist the Unit in storing and accessing materials.

Organization: SOIL AND WATER MONITORING UNIT

Contact Person: Head of Unit

Address: Soil and Water Monitoring Unit, Yundum

Telephone: 472836

Type: Government service unit

Size: Total staff of 46 (This number includes 6 degree holders, and 5 diploma holders. The balance is made up of agricultural assistants, surveyors, and support staff.)

Target Population: specially rural population

Main Purpose: To conserve water and soil resources in the country

Activities/Background: The need for a unit for farm-land conservation was identified through an ODA supported "Land Resource Survey" carried out in the Gambia from 1970-1974. Field activities began in 1974. In 1977, with the assistance of the United States Government, a "Soil and Water Management Project", the unit as such was established. The Project included natural resources data collection, training of nationals (which began in 1981), and support for field activities (1984-1990).

A major activity has been the development of the FoniJarrol Conservation District (officially established in 1987). What initially began with a request of assistance from one community (Jarrol) turned out to be a program for the protection of three watersheds for a large number of villages. The Soil and Water Monitoring Unit works with the community through Village Resource Conservation Committees (For instance, all the villages sharing a common watershed form a Village Conservation Committee).

For the three watersheds involved in the program, there is a District Conservation Committee. The forming of these committees is an undertaking by the villagers that they are willing to use good land-use practices to protect their watershed.

Non-formal environmental education and training is provided by the Unit's field staff through one-to-one interactions as they are working with the community. There are also group meetings.

Resources: Resources are mainly materials needed for the work which is being undertaken. There appeared to be a lack of teaching materials.

Lessons Learned:

- * 'Teaching' people in rural areas that negative impacts on the environment, such as with water catchment, may take place outside their own lands, and therefore they must take cooperative action there, is a difficult task, and must take into account socio/cultural patterns.

- * Through trial and error, the Unit has learned the importance of carrying out action research and impact assessment.
- * The need to include youth in schools in such a long-term community development program has also been identified.

Opportunities for EE&C:

- * The FoniJarrol Conservation District presents a unique opportunity to carry out studies to compare the behavior, attitudes and perceptions of people who have had 'hands-on' conservation education over a fairly long period of time, with those who have not.
- * A proposed new conservation district 'Busura', presents the opportunity for carrying out specifically-designed, systematic environmental education with the community, and thus the opportunity to compare it with the informal 'working together' approach which was used in FoniJarrol.

Institution: MINISTRY OF EDUCATION

Project: Regional Support for Education and Training of Teachers (RESET)

Contact Person: Deputy Chief Education Officer for Schools (Director of Schools)

Address: Ministry of Education, Banjul

Telephone: 225838

Type: Government

Size: 1 Education Advisor and 3 professionals (presently 2 ODA Technical Cooperation Officers specializing in Math and English, respectively and 1 Gambian Science specialist) form the Central Unit

Main Purpose: To re-establish systematic in-service teacher education and training by the Ministry of Education

Activities/Background:

Resources: Some materials have been developed for training purposes. Teachers will increasingly develop own teaching aids during training

Lessons Learned:

- * The original plan did not include head teachers. It was found necessary to first meet with them to orient them about the in-service activities, and to request their cooperation in allowing teachers from their schools to attend the training sessions.

Opportunities for EE&C:

- * The plan now includes regular training in the three areas of Maths, English and Science. Since Social and Environmental Studies is the fourth major curriculum area, it is reasonable to request a fourth specialist in this area from the Central Unit. The program is just starting off, therefore it is important to make this intervention as soon as possible. Teachers would then be able to receive environmental education in-service training as part of a broad, systematic in-service education and training program. This approach has a good chance of being sustainable.

Organization/Institution: EARLY CHILDHOOD UNIT, MINISTRY OF EDUCATION

Contact Person: Head of Early Childhood Education

Address: Ministry of Education, Banjul

Telephone: 27647

Type: Government

Size: 1 staff member

Target Population: Teachers and children of centers for early childhood education (including day-care centers)

Main Purpose: To monitor and assist early childhood education programs in the country.

Activities: UNICEF has assisted the Ministry of Education's work in this area. In 1992, a diagnostic survey was carried out. In response to it, a syllabus for early childhood education was developed through the Ministry's Curriculum Development and Research Unit. In December, 1993, a CDRU staff member who had worked on the early childhood education curriculum, was appointed Head of Early Childhood Education, under the Deputy Chief Education Officer of Schools. On January 3-14th, a group of 42 early childhood education teachers received training at Kaneffing Teachers' Center. UNICEF will continue to support training, monitoring and materials development until 1996.

Resources: Draft syllabuses for early childhood education in the areas of Language, Social and Environmental Studies, Health and Number Work, at four different levels to cater for children from 3 to 7 years old.

Lessons Learned:

- * The number of early childhood centers is mushrooming in the Gambia. According to the diagnostic survey, the number was 125 in 1992. Most of them have been established during the last ten years.
- * The need for development of early childhood teacher training materials has been perceived as a result of the initial teacher-training experience of January 1994.

Opportunities for EE&C:

- * Technical support skills to assist with the design of an early childhood education teacher training program and for the development of materials for such a program are timely

Organization: GAMBIA TECHNICAL TRAINING INSTITUTE

Contact Person: The Director

Address: Kanifing Industrial Estate, P.O. Box 989, Banjul

Telephone: 392781

Type: Government

Size: 80 staff members and 858 students (300 of which are part-time students)

Main Purpose: To provide technical training at various levels, both on a full-time, part-time, and also on-the-job training.

Activities:

GTTI is endeavoring to provide information technology to a large sector of the business community in the country. It has just completed a 3 year development plan, aimed at greater flexibility. Entry may be at various educational levels. Refresher and upgrading courses are offered for skilled people. GTTI is even willing to develop tailor-made courses to suit employee needs of organizations/institutions. It is moving towards polytechnic status.

GTTI's courses are organized within the following departments:

Building Department - which includes construction, plumbing, carpentry; Commerce and Arts Department - including typing, accounting, secretarial, English, and economics; Computer Department - including information technology and various computer courses; Engineering Department - which embraces automotive, mechanical, electrical, refrigeration and air conditioning, welding and fabrication, and other related courses;

Teacher Education and Training Department - which offers a one to two year part-time course for an Adult Education Teacher's Certificate; and an Electronics Section - which offers a 3-yr course in electronics servicing.

Resources:

Presently it has a lending library. However, work is under way, with World Bank assistance, to build a new library, resource center, and an integrated science laboratory. The Institute has computers, equipment (including audio/visual) and a reasonable amount of literature. However, its supply of environmental education materials is deficient.

Lessons Learned:

- * Students who enrol at GTTI do so to prepare for a job. Any new subject, i.e. Environmental Education needs to be functional. Students need to see how it will fit in relation to the job or work that they will be doing.

For instance, for trainee mechanics, the ozone issue taught on its own will not be of interest. However, if an explanation of the impact exhaust gases have on the atmosphere is given at the time that they are learning about exhaust systems, then it will be meaningful and of interest.

- * There appears to be a lack of awareness regarding disposal of waste materials. There is a need to deal with issues such as these within the context of the various technical subjects.

Opportunities for EE&C:

- * The awareness, within GTTI, of the fact that Gambia is a birdwatching paradise, but that population growth, destruction of habitats, and intrusive 'bird guides' are threatening it, has resulted in a proposal just being drawn up for a part time course in 'Ornithology and Environmental Studies' (12-18 months of 3 evenings and 2 field trips per week). Successful completion will lead to a Diploma in Ornithology and Environmental Studies. The aims of this program are "to produce a cadre of Government-accredited environmentally aware Gambian bird guides with the knowledge, skills and attitudes to enhance the international reputation of the Gambia as a major ornithological attraction, and thus contribute to the environmental, ornithological and consequently tourist potential/development of the nation". (Philip, 1994)
- * Apart from this course, GTTI would welcome technical assistance to help it integrate an environmental dimension to their program. After some brainstorming as to what could be possible, it was felt that possibly an Entrepreneurial Skills Development module, which is now being deleted from the technical courses, might be replaced with an environmental awareness module.

Organization: THE GAMBIA COLLEGE

Contact Person: Principal

Address: Brikama Main Campus, Brikama

Telephone: 484452/484748

Type: Government

Target Population: Students qualifying for tertiary education

Main Purpose: To provide tertiary education through four schools: School of Education, School of Agriculture, School of Public Health, and School of Nursing and Mid-wifery.

Main Activities/Background:

The Gambia is an educational institution, awarding 2-year certificates, and also some 3-year diplomas. It is semi-autonomous having its own Senate and Governing Board, but operating on a grant from the Government. A Social and Environmental Studies is a course on the program of studies for the School of Education. In the other schools of the Gambia College, there are no specific environmental courses, although there are aspects of the environment which are included in some of the existing courses.

Resources: The College has library facilities, and audio/visual equipment to support EE.

Opportunities for EE&C:

- * Discussions with the leadership of the College on the possibility of integrating EE into the formal curriculum, were very timely and fruitful. There is a strong desire to begin work towards developing the structure and syllabus for an EE course which could be introduced, not only into the program of studies for the School of Education, but into the program of studies in the other three schools as well. However, Gambia College would require EE technical assistance to help them undertake this activity.
- * The present Head of Social and Environmental Studies Department in the School of Education, wrote his Master's thesis on the development of an instructional module on Decertification, thus this piece of research can serve as a resource for EE curriculum development at Gambia College.

Organization: COMMUNITY HEALTH DEPARTMENT OF THE MINISTRY OF HEALTH, ENVIRONMENT, LABOR AND SOCIAL SERVICES

Contact Person: Principal Public Health Officer

Address: Public Health Unit, Medical Headquarters, Banjul

Telephone: 225510

Type: Government

Size: Community Health consists of several Units. These are : Vector Control, Registration of Births and Deaths, Environment and Sanitation, Food Hygiene, Port Health, and Factories. The staff is approximately 145 (varies with the number of positions which are filled at any one time). The total includes 1 Principal Health Officer, 13 Senior Public Health Officers, 15 Assistant Public Health Officers, and 83 Health Superintendents). At each of 7 Health Divisions, there is a 'Public Health Unit' consisting of a Senior Principal Health Officer, an Assistant Public Health Officer, and Health Superintendents.

Target Population: General public (both urban and rural)

Main Purpose: Responsible for public health. The health officers have the tasks of instructing, monitoring, and supervising public health activities in the country.

Activities: These include nutrition, hygiene, sanitation, maintaining the 'cold chain' (system to keep vaccines cold and to deliver them to the regions), registering births and deaths, approving building sites and plans. The approach is primarily one-to-one. The officers also give talks at clinics and at community meetings.

Resources: The only material resources are those obtained occasionally from the Public Health Education Unit or from specific donor projects. None were immediately available.

Lessons Learned:

- * Although the role of the health officers lends itself well to delivering environmental education, they are constrained by shortage of manpower, of vehicles, of equipment and of material resources.
- * The environmental health messages are often ignored by rural communities. The answer to this problem must be sought.
- * Film strips, which were produced and given to health officers and used several years ago, attracted large audiences and were found to be of great interest.

Opportunities for EE&C:

- * There is a possibility for improving the environmental awareness of future health officers through the introduction of a course during their pre-service training which is done at the Gambia College School of Public Health. There is a perceived need of this by the Public Health Unit.
- * In-service training in environmental health issues, related to the work of health officers could be given, if financial resources were available.
- * More audio/visual resources, e.g. films, posters, radio programs could be produced (possibly by NGOs) and furnished to the Unit to support their work.

Organization: FORESTRY DEPARTMENT, MINISTRY OF NATURAL RESOURCES

Contact Person: Director of Forestry

Address: 5 Marina Parade, Banjul

Telephone: 227537 or 227307

Type: Governmental

Size: Total of 133 (which includes two professionals, 15 technicians, forest scouts and all support staff)

Target Population: The population in general

Main Purpose: To develop, manage, and protect forest land

Activities: The Forestry Department's main activities are forest development and management of both plantations and national forests, control of forest exploitation, and education .

The work is carried out through several units: (1) the Forest Plantation Unit is responsible for developing tree nurseries for the national forests, which cover about 34,000 hectares in 66 different areas; (2) the Forest Protection Unit is primarily responsible for licensing and control of exploitation, and for forest conservation education; and (3) the Forest Research and Utilization Unit, whose activities have been greatly reduced since the privatization of the government sawmill at Nyanby.

EE is seen to be an important part of their work. However, this is not the case at present. Several constraints were given, i.e. (1) understaffed; (2) low educational level of most of the staff (only 1 professional in the field, 1 with Forestry Diploma, 1 with an 8 month Certificate in nursery management. 1 with high school, and 2 forest guards with secondary education. The rest are forest scouts from the local community with only primary education); (3) lack of training materials.

Resources: There is a 1-2 man Education Extension Unit which facilitates the production of educational materials, but evidently there is a shortage of resources.

Lessons Learned:

- * "It is difficult to tell people to conserve trees, when there is a need to be met"
- * A campaign to change people's attitudes needs time and other resources
- * People will more likely plant trees if they can earn some money from it. People still feel that firewood doesn't need 'to be grown'. It just needs to be cut.

Opportunities for EE&C:

- * Practical strategies to use for Forestry extension need to be developed, piloted and carefully evaluated. Deforestation is a very serious problem in The Gambia.
- * There is need for EE&C in-service training for forest extension workers.

Organization: MANAGEMENT DEVELOPMENT INSTITUTE (MDI)

Contact Person: Director

Address: Management Development Institute, Kanifing

Type: Government

Target Population: civil servants from various Ministries, and from parastatals, NGOs, and the private sector

Main Purpose: Management development, and the improvement of managerial efficiency and effectiveness in The Gambia

Main Activities: The Institute has several main programs. These are: (1) General Management and Policy Analysis; (2) Economic Management and Private Sector Development; (3) Financial Management and Accounting; (4) Women in Development; and (5) Special/Tailor Made Courses and Seminars.

Resources: The library has a fairly well-equipped library, but there was no evidence of any environmental management or other such resources.

Opportunities for EE:

- * Brief discussions indicated that the Institute understood the need for managers to have an awareness of environmental issues.
- * There is a program of studies review taking place now. It may be timely to investigate the possibility of introducing some aspects of environmental education
- * One of the outcomes of the United Nations Conference on Environment and Development (UNCED) was the realization that new models for development have to be put in place. Unlike the old models which were based on financial capital, the new models will have to take three kinds of capital into consideration: material capital (i.e. cost in money), human capital (i.e. what does this development cost in terms of human health, cultural values, etc.? and environment capital (i.e. at what cost to the environment will this development be realized?)

Introducing environmental issues into management programs such as those offered in institutions like MDI may be a beginning step towards that goal.

Organization: DEPARTMENT OF WILDLIFE

Contact Person: Director

Address: Department of Wildlife, Ministry of Natural Resources,
5 Marina Parade, Banjul

Telephone: 472888

Type: Government

Size: Staff of 46 (2 professional, 13 technical, and the rest are support staff)

Target Population: The general public, specially the communities around the wildlife parks and reserves

Main Purpose: The protection of wildlife areas and parks, and environmental education and research

Main Activities:

The Department carried out its activities through five main units: (1) Directorate; (2) Park Management; (3) Surveillance; (4) Control/Monitoring; and (5) Extension and Education. To carry out education and extension, there are currently five Education and Extension Units, one in each park, with an average of 5 people to a unit (2 of whom are Peace Corps Volunteers). Their main purpose is to work with the communities surrounding the parks and to sensitize them to issues such as poaching, bushfires, deforestation, and to help them utilize and renew resources for their own benefit as well as for conservation purposes. These units work with the schools around the parks, and give talks, present movies, do guided tours in the parks, and work with the communities to generate some income through projects such as burning fire-breaks. The Kiang West Wildlife Project is helping to support such endeavors in and around Kiang West Park, and Peace Corps is providing volunteers to help with manpower and training.

Resources: There is one national mobile unit for the Wildlife Department's education and extension work. There is also another vehicle, provided through the Kiang West National Park Integrated Conservation and Development Project, for use by the Unit operating in that area. Films produced by World Wildlife Fund, and a few videos on Gambia wildlife are used by the mobile unit. Resource materials, specific to the Gambia, are still badly needed.

Lessons Learned:

- * A review of past minutes, and a meeting with the Kiang West Advisory Group to discuss some of their plans, showed that the Education and Extension Unit is making good, steady progress with the five communities around the park with whom they are working. There was active participation by the head teachers of the schools involved. Having a vehicle helps to bring people together for meetings and events.

- * Visits to one park and one reserve showed that there is need for development of interpretation centers and materials. Available Audio Visual Resources were not adequately stored or displayed, and there was a shortage of materials on wildlife (including plants and birds) of The Gambia.

Opportunities for EE&C:

- * The Education and Extension Units offer great potential for increased and diversified strategies for environmental education and communication. Having a team of EE workers living in the area is ideal for mounting campaigns which are systematic and of longer duration. This is essential when attitudes need to be changed. The Units could also be very useful in helping to conduct action research.
- * Technical assistance could greatly assist with training of the members of the Education and Extension Units, and of the members of the Advisory Committees with whom they are working. It could also provide assistance in the development of interpretation centers, and possibly with the development of at least one Environmental Education Center in the parks and reserves.

Organization: DEPARTMENT OF COMMUNITY DEVELOPMENT, MINISTRY OF LOCAL GOVERNMENT AND LANDS

Contact Person: Director

Address: Ministry of Local Government and Lands, The Quadrangle, Banjul

Telephone: 226573

Type: Government

Size: Staff of 232 (including support staff and 33 casual). 90% of the staff are based in the Divisions, and posted at Ward level.

Target Population: Primarily rural, but 3 years ago started to target the urban population, as well.

Main Purpose: To organize people to respond to community needs

Main Activities: The activities of the Department are carried out through community development assistants (currently 95 of them), and to a lesser extent, through home-craft assistants (35 of them). Community development assistants must have a minimum of a secondary education (with at least 4 O-level passes) plus a 2-year course leading to a certificate. Homecraft assistants are selected from secondary school leavers who then undergo 18 months of training in income-generating activities. The training takes place at Mansokong Rural Development Institute.

The Department's activities are organized under several different units. These are:

- (1) Women's Program Unit - aims to empower women, by providing them with marketable skills.
- (2) Rural Health Day Care Center Unit - assists in the development and operation of 64 community-based day care centers.
- (3) Research, Planning and Monitoring Unit- plans and monitors ongoing programs
- (4) Engineering and Construction Unit - assists in the building of community structures, e.g. bridges, schools.
- (5) Appropriate Technology and Environment Program Unit - disseminates information on appropriate technology for farming, and processing, and makes pressed laterite bricks. It also runs an Environmental Sanitation Program to build VIP latrines. Fuel-efficient stoves are being promoted.
- (6) Development Communication Unit - disseminates news about the Department's activities, and informs the public who to contact to obtain assistance.

The Department is implementing the Women in Development's (WID) skill development component. This involves coordinating 125 village literacy/numeracy programs and carrying out day to day supervision of village facilitators (who carry out this work for about D300 per month which is paid by the WID Project, Danida and Action Aid).

Resources: Video camera, videos, and screen and projector. Small pamphlets are printed and distributed on a range of subjects. Occasionally produces radio programs.

Lessons Learned:

- * It is very difficult to chart directions when virtually all the money for activities comes from donors. The government allocation to the Department is very small.
- * In-service training is not systematic. When a weakness is identified, the community workers are called together for some training.
- * Audio/visual resources are very useful tools, but they are scarce.

Opportunities for EE:

- * The 2-yr part-time training course for community development assistants offers elements of sociology, program planning, community development, organizational skills, financial planning, and construction skills. The training is intended to incorporate EE, but there is no specialist in that area at the Rural Development Institute. Thus, the opportunity exists for incorporating EE into the training program of studies. Initially, a visiting trainer could be made available at the RDI for this purpose.
- * A plan which allows the community development assistants to purchase their own motor scooters, has resulted in better care and maintenance, and thus in more reliable transportation. This is important as it allows better outreach for EE if this cadre of community workers is given EE training and utilized for environmental education and communication (EE&C).

Organization: CURRICULUM DEVELOPMENT AND RESEARCH CENTER (CDRC)

Contact Person: Director

Address: Ministry of Education, Bedford Place Building, Banjul

Type: Government

Size: 30 including support staff

Target Population: school children at primary and secondary levels

Main Purpose: To develop school curriculum, and to write textbooks, teachers guides, and other teaching/learning materials

Main Activities: The Curriculum Development and Research Center uses National Subject Panels to develop curriculum and materials for each major subject area taught in schools. Each subject panel is composed of members representing different sections of the education system, e.g. i.e., teachers. teacher educators, inspectors, who work with a subject specialist in a particular subject area. The four major areas at primary level are English, Mathematics, Science and Social and Environmental Studies. The latter was the outcome of a recommendation in the New Education Policy (1988 - 2003).

Primarily school curriculum is developed using a spiral approach, that is beginning with simple concepts at the lower levels, and then expanding these at subsequent levels.

Short orientation workshops are held at the Divisions at the Teachers Centers to introduce teachers to the new materials.

The National Subject Panel for Social and Environmental Studies consists of eight people. Syllabuses for Grades 1 to 9 have been developed. Books for Grades 1, 2, 3, and 4 have been published by McMillan, while the Teachers Guides are being produced at BPMRU. In June, 1994, books for Grades 5, 6, and 9 will be available, published by McMillan as well.

Syllabuses for Population and Family Life Education have recently been developed for Grades 4 through 12. There will be pupils' books and teachers' guides for each grade.

CDRC is aware of the TIPE materials, but there has been no formal collaboration to date.

Resources: There is a small reference library for use by the Subject Panel members.

Lessons Learned:

- * A relatively small (8 members) National Subject Panel for Social and Environmental Studies has been easy to work with. However, the drawback is that there is more limited input.

- * The pressure of time has not allowed the materials to be piloted and then revised before final publication. Teachers have been invited to comment on the materials, as they use them.
- * A drawback of using separate subject panels for each subject is that it limits integration of teaching/learning experiences.
- * CDRC staff feel that a lot more in-service training is needed for teachers to adequately handle the new materials, i.e. Social and Environmental Studies.
- * The Social and Environmental Studies Subject Panel does not include an Environmental Education Specialist. The membership is strong in Social Studies expertise.

Opportunities for EE:

- * A technical advisor would be able to assist CDRC with the integration of EE concepts and activities across the other existing subjects at primary level, and ensure that the activities complement and supplement one another, and that there is no repetition as such.
- * The opportunity exists to facilitate collaboration between the TIPE Project and CDRC in the production of environmental education materials for the country at large.
- * It is important to evaluate the new Social and Environmental Studies materials, so that revisions are based on valid, reliable data.
- * Discussions need to take place with regards to integration of EE into the education system beyond Grade 9. How will it be approached at higher secondary level? How will it be integrated into pre-service and into in-service teacher education and training? After decisions are taken, an implementation plan can be drawn up.

Organization: PUBLIC INFORMATION UNIT

Contact Person: Head

Address: 14 Hagar St., Banjul

Telephone: 225060

Type: Government

Size: Staff of 150, including 89 at Radio Gambia

Target Population: The general public

Main Purpose: To provide a public information service.

Main Activities: The Unit makes itself available for use by all Ministries, government agencies, non-governmental organizations.

Its service is generally free. It is composed of several Departments: (1) Radio Gambia (which broadcasts in 5 languages); (2) Press Publishing Division; (3) Audio Visual Section. In addition, there is a Schools Broadcasting Division at Radio Gambia to which 2 teachers are seconded. They write scripts for the schools' radio programs.

The greatest use of the Unit is for radio publicity and for press releases. The demand for poster production and development of print materials is minimal. There is a demand for video production, but maintenance of equipment is a problem, thus this service is also not being greatly utilized. At one stage, the Unit had radio listening groups (for health and agriculture programs), but they no longer exist.

One of the most popular services is a nightly (8pm) totally rural development program, primarily with inputs from Health and Agriculture. Use of a mobile unit for video and film projection also draws a big audience.

There is approximately 5 hours per week allocated to school's broadcasting. Although the time is allocated for all subjects, the emphasis currently seems to be on English. The programs are formal. Broadcasters find it difficult to go up country to tape on sites. There is also a problem with shortage of radio sets.

The government provided radio sets about 8 years ago, but there is a need to replace many of them now.

Resources: Radio Gambia has a well-equipped radio facility. The Unit also has video-production, and film projection equipment (but this needs replacing).

Lessons Learned:

- * Assessment is important to upgrade the quality of programs. (This was a lesson learned from the evaluation of the Oral Rehydration Program.)
- * There is need to appoint a Public Relations or Information Officer in each Ministry in order to increase the participation of more Ministries.

Opportunities for EE:

- * The opportunity exists for an innovative, possibly interactive type of radio program to help raise environmental awareness. This might be produced as a collaborative effort by several agencies and NGOs.
Such a project would necessitate well-planned formative and summative evaluation.
- * A separate activity to record cassettes on different environmental topics, and then make them available for radio programs, or to schools, groups, or conservation clubs, might be a useful way of collecting important material.
- * There appears to be room for greater use of radio for environmental education. There also appears to be room for greater and more varied participation for program development, e.g. using youth, student-teachers from Gambia College, field extension workers.

Organization: DEPARTMENT OF NON-FORMAL EDUCATION, MINISTRY OF EDUCATION

Contact Person: Director

Address: Ministry of Education, Bedford Place, Banjul

Telephone: 228766

Type: Government

Size: Approximately 98 literacy facilitators

Target Population: Illiterate adults and youth

Main Purpose: To teach people to read and write

Main Activities: The Department is guided by an Advisory Committee (which is multi-sectoral), and has Regional Officers, who spearhead planning in collaboration with Non-Governmental Organizations on a regional basis. The Department relies on literacy facilitators to organize literacy classes. These literacy facilitators were originally volunteers, but now are paid a small salary to carry out their work. The required qualifications for this job are successful completion of four years of secondary school, plus 2-weeks pre-service training. In addition, literacy facilitators receive about 1-week of in-service training per year. The Department has a Literature Division which produces the teaching/learning materials. In 1993, after a community diagnosis, a core curriculum was developed which is now being developed into syllabuses.

The Department has a holistic approach to development, thus literacy classes are also used to disseminate 'development' messages and as fora to initiate community activities. For example, in 1984, with funding from EDF and assistance from the Forestry Department, tree-planting activities were undertaken in Upper River Division. Bamboo was also planted. However, the project collapsed in 1986 due to lack of funding.

Currently, there are plans for conducting a simple research project on people's environmental perceptions in Serrakunda to contract with other areas, such as Kiang West.

Lessons Learned:

- * One of the biggest constraints to participation by women in literacy classes is that they are working so hard all the time, that they either don't have the time, or the energy, to attend classes.
- * A growing number of NGOs are promoting literacy. They assist with finance and manpower.
- * The most successful literacy classes are those which have been formed as a result of a perceived need by a specific group, such as a group of women realizing that they need basic

literacy and numeracy skills in order to carry out income generating activities. Thus literacy classes need to give people functional literacy.

Opportunities for EE:

- * There appears to be room for the development of materials with environmental concepts and information for skill-development for neo-literates.
- * The results of the survey on people's perception of the environment will be of interest to all those involved in EE&C.

Organization: WOMEN'S BUREAU, OFFICE OF THE VICE PRESIDENT

Contact Person: Executive Director

Address: 7 Lasso Wharf St., Banjul

Telephone: 225076

Target Population: General public, women in particular

Main Purpose: To serve as a policy and coordinating agency for women's affairs

Main Activities: The Women's Bureau carries out its work through several components: (1) the Information, Education and Communication (IEC) Unit; (2) the Projects and Programs Unit; (3) the Training and Social Reforms Unit; (4) the Research Unit; and (5) the Monitoring and Evaluation Unit. The Bureau is guided by the National Women's Council, a body of 33 counsellors, representing the Divisions. The representatives are elected by the local authorities. The Council meets quarterly and advises Government on Policy.

The Bureau is focusing on improving the status of women. To do this, they see the education of the girl child, a priority, since only 39% of girls are in school.

Lessons Learned:

- * Changing attitudes is a long, difficult process, largely because attitudes are rooted in cultural and religious traditions.
- * It has been found that the formation of women's groups for special purposes, e.g. income generating activities, craft projects, crop production, is an effective approach to mobilize women.
- * A major constraint to providing skills training to women is that due to their heavy work loads, they do not have spare time and/or energy for classes.
- * There is a need to help grass-root groups access and manage funds for development activities.
- * Among the various approaches (talks, videos, demonstrations) used by the Women's Bureau for education and communication, drama has been found to be very effective.

Opportunities for EE:

- * There is apparently very little (outside of occasional tree-planting activities) being promoted in the area of EE&C through the Bureau, and the Executive feels that more could be done with appropriate technical assistance. A small research study is warranted to explore the feasibility of integrating EE with ongoing activities.

- * A series of meetings/conferences on EE&C for the Women's Council may help to raise the environmental sensitivity of this important body.

Organization: AGRICULTURE COMMUNICATIONS UNIT, DEPARTMENT OF AGRICULTURAL SERVICES, MINISTRY OF AGRICULTURE

Contact Person: Head

Address: DAS, Bakau Cape St. Mary

Telephone: 495038

Type: Government

Size: Staff of 30, including 2 trained and 3 trainee radio technicians, 2 professionally trained and 2 trainee trainers, 2 repair technicians, and 4 professionally trained video production technicians.

Target Population: General public, specially the rural population

Main Purpose: To be a service unit primarily for all branches of the Ministry of Agriculture, and also for other Ministries and NGOs.

Main Activities: The Unit carries its work through several sections. Its most important functions area: (1) in-service training to village level workers and to district supervisors, and monitoring and supervising the training by village extension workers; (2) the production of regular radio programs for farmer; (3) the production of audio/visual materials such as videos, posters and pamphlets for extension work; (4) the production, every two months, of the Gambian Field Workers Magazine, 'Senelaa'; (5) bi-monthly workshops for top level Agriculture staff; and (6) the use of 3 video vans for national outreach and campaigns. The main focus is to promote agricultural information availability and utilization. The approaches used by the Unit include radio, films/videos, print media, and leaflets.

Resources: The Unit operates 3 video vans (sometimes lending one out to a region). It has a video production unit, with a newly donated console for editing video films (from WID). It has a printing workshop and equipment for production of posters and screen printing. It also has photographic equipment.

Lessons Learned:

- * The Unit has found that radio is a very popular means of communicating with farmers.
- * Currently there are 30 minutes of programming twice a week (Mondays and Thursday) to which all departments of Agriculture are contributing. Unfortunately, other Ministries and NGOs are not utilizing radio time which would be available.
- * A study for a Master's Thesis was conducted on Rainfed Rice Farmer's Information Availability and Utilization in the Gambia by a staff member of the Unit. This study surveyed the various means by which farmers receive agricultural information. It surveyed techniques which included radio, films, farm visits, office calls, print media, leaflets, and studied the contacts with extension services and with other sources of information. Surprisingly, the most

common source of agricultural information which was identified by the participating farmers, was friends and relatives. This very well-conducted study provides useful information which should be reviewed and utilized for selecting approaches for EE&C for the farming community.

- * The Unit feels that there is too much of a top-down approach in communication, and that through participatory methods, better approaches should be found.

Opportunities for EE:

- * If friends and relatives are considered good sources of information, it appears that it would be meaningful to create environmental awareness (through campaigns) to introduce environmentally-friendly technologies which address specific needs. Thus people would be in a position to make their own choices. The greater the number of people who are informed, the better equipped they will be to influence others.
- * The opportunity exists to support further research to determine better training/communication methods for EE for farmers. A research proposal for a PhD dissertation has just been developed on "Farmers' Availability and Utilization of Soil, Water, and Agroforestry Conservation Techniques: A Study Within Foni Jarrol District, The Gambia." It is strongly recommended that support for this piece of valuable research be provided.

Organization: DEPARTMENT OF AGRICULTURAL SERVICES, MINISTRY OF AGRICULTURE

Contact Person: Director

Address: DAS, Bakau Cape St. Mary, The Gambia

Telephone: 495038

Type: Government

Size: Approximately 125 (106 field extension workers, supervised by 18-19 officers)

Target Population: General public, specially the farming community

Main Purpose: To improve farming in The Gambia through appropriate technology transfer and the development of human resources.

Main Activities: The Department of Agricultural Services carries out its functions through four main components: (1) the Soil and Water Monitoring Unit; (2) the Agricultural Communication Unit; (3) the Food and Nutrition Unit; and (4) the Agricultural Pest Management Unit. To qualify as a field extension worker, a person must satisfactorily complete secondary education, and then take a 2-yr general agriculture course at the Gambia College.

Later on, further studies (a 3-year diploma course) for selected officers may be undertaken outside the country. The activities of field extension workers range from education/training on soil conservation, land-use and development, animal traction cultivation, use of pesticides, horticultural techniques to food production and preservation techniques. The extension officers work in conjunction with other governmental and non-governmental field workers in the Divisions. Interpersonal communication is the main approach used to reach their target population. Every year, for a total of two months, the Agriculture Communication Unit organizes in-service courses for different staff in the Ministry of Agriculture. This program includes some in-service training for the field extension workers.

Resources: The field extension officers depend on the resources of the Agricultural Communication Unit.

Lessons Learned:

- * A survey conducted in 1992 by Sonko and Jabang, showed that the larger the number of people who are aware of an issue, the more likely that people will adopt a suggested measure on that issue from the extension workers.
- * Village meetings, field demonstrations and group contacts are useful techniques used by extension officers to disseminate information.

- * Some of the traditional beliefs and/or superstitions about resources, such as taboos against destroying certain forests, i.e the Yarambamba Forest (Yundum), now appear to have an environmental significance. Possibly some of the folklore merits a closer look.
- * A problem with conservation education is that it is difficult to arouse people's interest in future consequences when they are facing problems of survival now.

Opportunities for EE:

- * A key to effective environmental education, then, seems to be to focus on environmental impacts of resource management which can be clearly seen and measured now. For example, people can readily compare the effects of cultivation techniques which conserve topsoil with those which do not.
- * Other studies, e.g. Sima (1991) similar to Sonko and Jabang's (1992) survey mentioned above, have found that raising general awareness lays the foundation for possible change or action. Thus, campaigns to raise the environmental awareness of the target population, appear to be a good place to start environmental education initiatives in the country.

Organization: WESLEY PRIMARY SCHOOL

Contact Person: Headmistress

Address: P.O. Box 572, 2 Dobson St., Banjul

Telephone: 227541

Type: Aided primary school

Size: 653 children and 20 teachers

Target Population: The children attending the school

Main Purpose: To provide basic primary education to 653 children

Main Activities: Teaching the prescribed program of studies for children from Grade 1 to Grade 7. The school has an active Parent-Teacher Association which works hard to improve the standards of the school. The Association helps to carry out renovation to the school buildings, and to obtain some materials and furniture for the school. Social and Environmental Studies is being taught, but books are available only for Grades 1 to 4.

Resources: There were a few shelves of books in the Head Teacher's office, but resources are limited. The posters and materials displayed on the walls of classrooms that were visited were generally old and worn, and were mainly developed by the teachers. No EE audio visual aids were in evidence.

Lessons Learned:

- * When asked about environmental activities, one was referred to the Social and Environmental Studies books, but there was no sign of student participation, other than to assist with cleaning the classroom and the grounds.
- * There was practically no reaction, one way or another, in response to questions to solicit their opinions about the Social and Environmental Studies material. The staff interviewed did not seem aware that they were in any position to change the materials.
- * The school was keeping field trips to the very minimum because they have been found to be costly.
- * The school grounds were clean but there were no shade trees or garden, or any sign that they were used for EE&C.

Opportunities for EE:

- * In-service teacher training is needed to utilize existing resources, and to learn to make new ones.

Organization: METHODIST PRIMARY SCHOOL

Contact Person: Headmaster

Address: 83 Dobson Street, Banjul

Telephone: 228265

Type: Aided primary school

Size: 1016 students and 30 teachers

Target Population: The children attending the school

Main Purpose: To provide primary education

Main Activities: The children are organized into two shifts.(Most of the teachers teach two shifts for 40% more pay) The courses listed on the time-table are: Mathematics, English, Science, Social and Environmental Studies, Games, Singing, Home Economics, Arts & Crafts and Physical Education (the last five being taught for only an hour or so per week. The school participates in the Textbook Rental Scheme. Under this scheme, a set of books can be rented for D20 per year. In many cases, two children share a set of books.

Resources: The school is lacking resources and has limited facilities. There are very limited toilet facilities (3 toilets) and the grounds are bare of trees, grass or any other plants. There was a noticeable amount of litter in the school grounds.
There is only one very small film strip projector available.

Lessons Learned:

- * When asked about the Social and Environmental Studies materials, the head master and a member of staff, said that they thought the books were attractive and useful..
- * The school has only one film-strip viewer which is used for Religious Education only. There is no evidence of active interaction with the community.

Opportunities for EE:

- * The opportunity exists for working with teachers to help them utilize their immediate environment as a learning medium. Talks with teachers indicate that they are very eager to participate in in-service training that will make their work easier, more interesting for children, and with an environmental dimension.

B. Non-Governmental Organizations (NGOs)

Organization: GAMBIA TEACHERS UNION

Contact Person: General Secretary

Address: P.O. Box 133, Banjul

Telephone: 392075

Type: Non-Governmental, union

Size: Roughly 3,000 members (with possibility of enlisting another 1,000)

Target Population: Teachers

Main Purpose: To better the quality and the conditions of the teaching profession in The Gambia

Activities/Background:

This union, which is an affiliate member of Educational International, the World Teachers Union (with 20 million members), works on two dimensions of the profession: (1) professional interests - which involves both academic and professional development of teachers; and (2) union interests - which involves teaching teachers about the union and their participation in it. The Union is run by an Executive Board and administered by a General Secretary. There are Regional and District Committees.

Targets and plans are set yearly by the Executive Board. Activities

Lessons Learned:

- * A large part of "empowering" teachers depends on raising their self-esteem. As they receive more training, they will gain confidence in disseminating their own ideas and motivating others. The assumption is that they will then become more credible opinion leaders in their own communities.

Opportunities for EE&C:

- * Staff development programs, which raise the environmental awareness of teachers will have a multiplier effect through them not only to students, but to the communities in which they live.

Organization: THE GAMBIA FAMILY PLANNING ASSOCIATION (GFPA)

Contact Person: Director

Address: P.O. Box 325

Telephone: 391475

Type: Voluntary, non-governmental

Size: Staff of 74 (which includes 7 support staff and 4 extension workers in each of seven branch associations in the regions, i.e. Basse, Mansokonko, Western Division, North Bank, Bansang, Banjul, and Kombo.

Target Population: General public, especially men, women, and youth

Main Purpose: To disseminate family planning information and education, and promote service delivery The Association supplements the Government's family planning efforts.

Activities: GFPA (1) organizes workshops and seminars on family life education, family planning, population, development, environment and resources; (2) mounts consultative meetings with other organizations interested in MCH/FP; (3) maintains clinics for outreach counselling and services; (4) establishes women's development programs, and community-based distribution of contraceptives; (5) provides advice and family life education to youths, and helps establish youth clubs and panels to promote family life education; (6) collaborates with other agencies to promote the Association's aims.

Resources: Posters, brochures, leaflets, and T-shirts, caps, and badges for youth activities, (these are designed by GFPA and sub-contracted out for production) The Unit has a video machine and some cassettes from IPPF but hasn't used them yet.

Lessons Learned:

- * GFPA has learned that before an intervention is made, it is first necessary to look at resources in the community and how they are being utilized. In order to practice this diagnostic approach, GFPA prefers to use interpersonal methods of communication and education.
- * It would be desirable to disseminate information in a more integrated way. For instance, family planning can give an environmental message about population growth and pressure on natural resources.

Opportunities for EE&C:

- * GFPA's idea of mobilizing youth volunteers (by giving incentives, such as the proceeds of condoms and birth-control pills they sell, T-shirts, caps and badges), appears to be working very well. It merits a careful evaluation to see whether use of this approach could be used for other extension purposes.

- * In 1993, two sensitization workshops were organized by the National Population Commission (one for policy makers and one for district authorities) to link population and environment. An outcome of these workshops, was a recommendation that Division Coordinating Committees should be formed to formally institutionalize the linking of extension workers into a team. At least one (at Upper River Division) is now functional. If this continues, there would be the opportunity of developing environmental education in-service training programs, with a holistic, environmentally-sound approach aimed at sustainable development, for these teams in the Divisions.

Organization: WORLDVIEW INTERNATIONAL

Contact Person: Director

Address: Private Mail Bag 94, Banjul

Telephone: 496666 and 496990

Type: International, non-governmental

Size: 27 staff in The Gambia, of which 19 are field staff

Target Population: public media, other NGOs, and villages in the Lower and Central Baddibu Districts of North Bank Division, and also in

Main Purpose: To promote environmental management, i.e. to reduce human activity which damages the ecosystem, including deforestation, soil degradation, and bushfires.

Main Activities: Worldview is working through community leaders and animators in cooperation with the Forestry Department. They are carrying out village surveys to assess needs, organize training workshops and seminars on tree planting, fuel-efficient stoves, and family planning. During 1991-1992, it carried out a series of 36 sensitization programs to discuss environmental problems and to suggest possible solutions. They have also established a seedling nursery (including mango, cashew, julia-flora, acacia, eucalyptus, guava and forest species) in the North Bank Division, and are promoting wood lots. Students and teachers from some primary schools have participated in tree-planting activities. During 1992-1993, using a participatory rural appraisal approach, eleven villages were sensitized to environmental issues. Since October 1993, Worldview has been working with the Ministry of Communication, with support from The Netherlands, on a Television Training Project. It established a Media Center, with a team of 3 people and a well-equipped video-recording unit. It has also just carried out its first course on Media Production for people from various government offices.

The Media Center intends to develop video programs in the areas of Environment, Health, Population, Environmental Sanitation, and Empowerment of Women. Presently it has produced three: "Beach Boys", "TANGO", and "Environmental Sanitation".

Resources: This NGO has a well-equipped Media Center which may be used to develop EE audio/visual materials, and to train manpower on media production.

Lessons Learned:

- * Worldview is convinced that wider use of media is needed to raise environmental awareness.
- * There has been encouraging response to media campaigns in villages using a combination of traditional and innovative approaches.

Opportunities for EE&C:

- * The services of the Worldview Media Center may be utilized by other NGOs and government agencies for the production of videos on topics of their choice.
- * The 3-month media production course might also be of interest to those organizations, e.g. Gambia Family Planning Association, Public Health Unit, who are designing their own materials.

Organization: UNITED STATES PEACE CORPS

Contact Person: Director

Address: P.O. Box 582, Banjul

Type: International, non-governmental

Size: There are roughly 13 office staff, 14 support, and a total of 69 Peace Corps Volunteers (in the areas of Agriculture, Education and Forestry) in the field.

Target Population: Government and people of The Gambia

Main Purpose: To promote human resource development

Main Activities: Half of the volunteers are serving as mathematics and science teachers in the country's schools. The others are serving in many capacities, training counterparts in government departments, and working with specific projects, such as the Chimpanzee Rehabilitation Project. Four volunteers are operating, and helping to develop the four Regional Education Resource Centers. Regardless of occupation, every Peace Corps Volunteer has now been asked to make the promotion of Environmental Education (EE) a priority. New volunteers are now given pre-service training in EE. Also in-service EE training is being facilitated systematically to volunteers. The main approach which is being encouraged is through community-based educational activities. As students learn new concepts and skills, they are assisted to put them into practice in projects which will help upgrade the quality of life in their community.

The AR Project has provided an operating year budget transfer for the Peace Corps natural resources/environment education program. In addition to community, non-formal EE activities, formal EE in the classroom will be promoted, primarily through activities in the four Regional Education Resource Centers.

Resources: Of all the organizations visited, Peace Corps seems to have one of the best, if not the best, EE resource center(s). Resources include films, videos, slides, posters, printed materials, as well as games and other equipment for environmental studies. A list of the EE materials there has just been compiled.

Lessons Learned:

- * Parents and students can actually see that education has outcomes which are of benefit to them.
- * PCVs are quickly taking up the new environmental education challenge, and those interviewed, said that it gave more meaning to their work, and that their own awareness and concern for the environment was increasing at the same time.

Opportunities for Environmental Education:

- * The volunteers represent a cadre of environmental educators in the field, which if supported and utilized, can prove invaluable.
- * PCVs may also help to train other teachers and extension workers in the field.
- * The PVC newsletter 'Trees 'n' Stuff can assist in disseminating useful environmental education messages in the field.

Organization: CATHOLIC RELIEF SERVICES, THE GAMBIA

Contact Person: Country Representative

Address: 3 A Marina Parade, P.O. Box 568, Banjul

Telephone: 227120/227121

Type: International, non-governmental, church-affiliated

Size: Staff of 40 (of which 15 are either professional or technical and the rest, support staff)

Target Population: Primarily rural communities

Main Purpose: To improve living conditions, specially of mothers and children..

Main Activities: Although Catholic Relief Services is primarily known through one of its major activities, the distribution of food-aid, the organization carries out activities to promote the development of rural communities through an integrated program of agriculture, health and nutrition, and savings/credit. It is also involved in institution building, working in partnership with local NGOs and helping them to identify and implement their own projects. The main ones with whom it is working currently The Association of Farmers, Educators and Trainers (AFET), the Child/Youth Support and Rural Development Agency (CYSARDA), the Gambia Rural Development Agency (GARDA), and the Gambia Food and Nutrition Association (GAFNA). It is also promoting women's groups, 'Kafos'.

One of CRS's focus areas is on Agriculture and Natural Resources Management using a participatory approach to involve farmers in identifying their own problems, choosing options and possible solutions, trying out alternatives (through their own 'experimentals'), and assessing results. As they carry out these activities, the farmers are acquainted with ecologically-sound agricultural practices.

Lessons Learned:

- * Women's groups, whose work is facilitated in some small measure, are often quite successful in achieving what they set out to do.
- * Women entrepreneurs are finding out the value of functional literacy. There are over 375 women paying for their own literacy classes which are being established by the Sesame Growers Associations (SGA).
- * Group methods have worked best for CRS projects

Opportunities for EE&C:

- * Animators who come from the target villages often have low educational qualifications and little, if any, training. There is need to help train them in environmentally-sound practices
- * There is a possibility of providing grass-roots EE through the established kafos.

Organization: THE ASSOCIATION OF NON GOVERNMENTAL ORGANIZATIONS (TANGO)

Contact Person: Executive Secretary

Address: P.M.B. 392, Serrekunda

Telephone: 90095

Type: Non-governmental

Size: 7 staff members in the Secretariat

Main Purpose: To coordinate NGOs in The Gambia

Main Activities: TANGO maintains a data base on NGOs operating in The Gambia. Every two years it produces a Directory of NGOs, and four times a year, it produces a newsletter. It provides technical assistance, and facilitates pre-organizational grants to indigenous NGOs. It also participates in the Advisory Committee for the Coordination of NGOs (ACCNO), an inter-governmental body assisting the Department of Community Development. As needed, TANGO will organize forums for NGOs to discuss issues of common interest and concern.

Resources: "TANGO Talks" newsletter, and a Directory of NGOs.

Lessons Learned:

- * According to TANGO, only a handful of NGOs (international ones) are carrying out environmental education activities.
- * Local NGO's don't have the capacity to carry out their proposed projects, primarily because of lack of technical skills and lack of financial resources.
- * Often people form an NGO (it is easy to register as one) because they feel that a certain community or group has a specific need. This is a "top-down" approach which often leads to failure.
- * Many NGOs are trying to do too many kinds of activities without enough manpower and/or technical skills. One of the 'added on' activities may be listed as environmental education, but it is done haphazardly.

Opportunities for EE&C:

- * TANGO would like to participate in being a channel for NEA to reach NGOs and motivate them to become more involved in environmental education activities. It is willing to organize a conference to invite all NGOs whose activities have an impact on the environment so that their own sensitization can begin.

Organization: FOUNDATION FOR RESEARCH ON WOMEN'S HEALTH PRODUCTIVITY AND ENVIRONMENT (BAFROW)

Contact Person: Executive Director

Address: 147 Tafsir Demba Mbye Road, P.O. Box S.K. 2854, Kanifing

Telephone: 25270

Type: Research Foundation

Size: Staff of 3 at Headquarters. Roughly 25 members of the Foundation

Target Population: Institutions/organizations

Main Purpose: "To assist in and contribute to the development of a conceptual framework on gender and development," and to facilitate dialogue among interested partners on the empowerment of women

Main Activities:

BAFROW's main activity is to develop action research programs primarily in the following areas: (1) Women and the Environment; (2) Women's Health and Women's Rights Activities; and (3) Women's Productivity and Economic Power; and (4) Child Abuse.

It is also campaigning actively against female circumcision.

Resources: Basic office equipment, including a computer. The Foundation has also developed a few posters, including one against female circumcision. It designs and produces its own survey materials (e.g. color-coded cards with symbols for largely illiterate rural target populations)

Lessons Learned:

- * There are in-country organizations, such as this one, who have the capacity to help carry out Knowledge, Attitudes and Practices (KAP) research on specific issues, e.g. Women and the Environment
- * This organization uses the talents of students to help produce drawings for posters and for other simple materials.

Opportunities for EE&C:

- * The Foundation would like to carry out research on day-to-day environmental problems which women encounter.
- * The Foundation has available a team of local consultants from among its members who have considerable expertise on women's issues.

Organization: CHIMPANZEE REHABILITATION PROJECT

Contact Person: Director

Address: PMB No. 371, Serrekunda,

Telephone: 460351

Type: Non-governmental

Size: Staff of 4 (including one Peace Corps volunteer)

Target Population: villagers on the edge of the River Gambia National Park, school children, 'tankala' (16-19yrs olds who don't attend school), customs and other government officers.

Main Purpose: Originally chimpanzee rehabilitation, but now has an active environmental education program to promote the conservation of the River Gambia National Park and its surrounding areas. The program emphasizes conservation, biodiversity and land ethics.

Main Activities: Nature awareness outings for village children, youth, scouts, alkalo meetings, and meetings with villagers to raise awareness about the National Park and biodiversity, i.e. chimps. The approaches which are used emphasize frequent interactions with the natural environment to expose the participants to positive, enjoyable environmental experiences. Some Project Wild techniques are also being used in this program.

Resources: Use is being made of the natural environment, and of the skills and knowledge of the people around the Park. There are also plans for a small environmental education center. planned.

Lessons Learned:

- * Positive, enjoyable experiences with the natural environment are effective not only in creating awareness, but in developing positive feelings about the environment.
- * Relating the threats to the Park environment to the impact this will have on people's own lives, is one way to begin understanding man's interdependency with the natural environment.

Opportunities for EE&C:

- * The approaches which are being utilized in this program could be tried in other cases where village people bordering a national park or reserve are residing. It would be useful to have a round table discussion by EE practitioners dealing with similar populations (as in this case) to share experiences and compare methodologies and outcomes.

Organization: TRAINING AND INFORMATION PROJECT ON THE PROTECTION OF THE ENVIRONMENT (TIPE)

Contact Person: Coordinator

Address: P.M.B. 132, G.E.C. Stores Site, Manifing K.S.M.D.

Telephone: 90174, 90181

Type: International Project for 9 SAHEL countries

Size: 1 coordinator, and a writing team of 3 in The Gambia

Target Population: Grades 4 & 5 students and their parents in 100 schools

Main Purpose: To raise conscious awareness in the school system about the environment, i.e. knowing, managing, and being committed to improving and rehabilitating the environment. It is also intended that the school children will, in turn, raise the environmental awareness of their parents.

Main Activities: A pupil's activity book has been produced for Grade 4 and for Grade 5, as well as four small readers. These are being trial tested in 100 schools. In-service training has been provided for the teachers to introduce them to the materials. This training is residential, and is spread over a year for a total of 22 days. An evaluation of the materials is presently being conducted.

Resources: Pupil's Activity Book 1, Pupil's Activity Book 2, and four 20 page readers ('Tree Planting in the Gambia', 'Disappearing Forests in The Gambia', 'Soils, The Gambia', and 'Nature's Animals, The Gambia'). There are now also Teacher's Guides and a Teacher's Manual.

Lessons Learned:

- * The successful use of these materials in schools, depends on being able to provide a classroom dimension, and also a field dimension for the educational activities.
- * There was a need to print a Teacher's Guide and a Manual in order to provide teachers with content material on the environment, as it was found that their own training was limited in this regard.
- * It is important to have students integrate with the community in carrying out activities such as firebreaks, windbreaks, orchards, and nurseries. The teacher is expected to facilitate this, but it is not always possible.
- * A large constraint has been the mobility of the teaching staff. Too often, a teacher who has been trained to use the TIPE materials is transferred, and the class has a teacher who is not able to use the materials as they are meant to be used..

Opportunities for EE:

- * There is a need to link this Project more closely with the Curriculum Development and Research Center so that it will supplement the existing Social and Environmental Studies program. Right now they are two separate programs.
- * There is the possibility of providing more follow-up training for teachers so as to provide guidance and support while they are using the materials, and to specifically help them with integration of school activities into community development activities.
- * There needs to be an evaluation on the impact which the TIPE program is having on the parents, as this is one of the Project's intended objectives
- * The opportunity exists for helping teachers develop teaching/learning aids for these materials.
- * There is the opportunity of working with the TIPE team to review and improve the materials after the evaluation.

Organization: ACTION AID, THE GAMBIA (AATG)

Contact Person: Director

Address: MDI Road, Kanifing South, P.O. Box 725, Banjul

Telephone: 92004 **Fax:** 92425

Type: Non-governmental

Size: Approximately 300

Target Population: primarily the rural population of Lower River Division and also in Middle River Division

Main Purpose: To promote community development.

Main Activities: Action Aid carries out a very broad range of activities, specially in Lower River Division. Their premise is that they help communities assess their own needs and plan their development. The organization facilitates the implementation of those plans, thus it is involved in some way or another with every aspect of community development. This includes infrastructure development, construction, agriculture, animal husbandry, income generation, credit and savings, primary health care, nutrition, sanitation, water resource management, education (literacy classes, school construction, and skills training). In the area of the environment, Action Aid helps communities with tree-planting (from nurseries to woodlots), live fencing, and agroforestry. Various approaches are used to reach the communities, but the emphasis is on interpersonal communication.

Action Aid produces a functional literacy publication series in three languages for neo-literates. The topics are Beekeeping, Livestock, Primary Health Care, Credit Facilities, Fishing, Gardening (horticulture) and The Environment (basic needs).

These are produced in conjunction with CDRC and the Non-Formal Department of the Ministry of Education.

Resources: Literacy materials, a newsletter, occasional papers, and a booklet "Gambia, Trees or Desert". It uses the facilities of the Rural Development Centers.

Lessons Learned:

- * Attendance at literacy classes (usually scheduled in the evenings) is a problem.
- * People will only respond to messages which they feel will have a direct, immediate benefit for them.
- * Personnel working with NGOs need in-service training, specially in environmental education.

- * Many more materials are needed for literacy classes. Those presently being used need to be evaluated.

Opportunities for EE:

- * Technical assistance may be able to assist with integration of EE into the revision of existing literacy materials, and with the production of new ones.
- * The opportunity exists to assist with in-service training for Action Aid personnel in Environmental Education concepts and methodology.

Organization: SAVE THE CHILDREN (USA)

Contact Person: Field Office Director

Address: 51 Garba Jahumpa Road, P.O.Box 828, Banjul

Telephone: 496624 **Fax:** 496625

Type: Non-governmental

Size: Staff of 38-40 people

Main Purpose: To promote community development.

Main Activities: The Gambia Field Office (TGFO) carries out its activities (primarily in North Bank Division) under several sectors. The Health Sector's major activity has been to increase the capacity of communities to maintain their own Primary Health Care services. Another major activity is the development of learning centers for promoting literacy, nutrition, health information, and family planning. The main focus of the Human Resources Development Sector is to enhance teaching/learning by providing classrooms/structures, and to furnish these with benches and tables. The Food Sector has been working with seed multiplication for rice and millet, horticultural gardens, tree-nurseries for schools, soil erosion control, and salt-intrusion control. The project coordinator for the On Farm Productivity Enhancement Project (OFPEP) has been, with Peace Corps Volunteer collaboration, setting up demonstrations of nitrogen-fixing trees inoculated with Rhizobium to compare their growth with non-inoculated trees. It is also setting up compost-making demonstrations. The Economic Development Sector assists with the development of village-based credit and saving institutions. Its objective is to make credit accessible to Literacy graduates. It also provides skills training, e.g. sewing and bee-keeping for women.

In November 1992, an agreement was signed providing a one year grant from the ANR Project to assist SCF to build on, and extend to one additional community, its innovative community-based natural resource management program initiated in the North Bank Division. The following outputs are expected:

- (i) Increased hectares under improved natural resource management;
- (ii) Guidelines for the format, content and process of negotiating community resource management agreements;
- (iii) Guidelines for a system of monitoring and evaluating NGO program impacts, and a mechanism of data feedback into the USAID system for ANR program monitoring;
- (iv) Guidelines for NGO grant selection criteria and program implementation strategies, including proposal development and approval; and

(v) Suggested guidelines for grant implementation including logistics, NGO-Government coordination, and community participation.

A report is soon to be produced on progress to date.

Resources: The field office has a small library, where documents and reference materials are available.

Lessons Learned:

- * TGFO has had difficulties in turning over the learning centers so that they are operated by a community agent (e.g. WID).
- * The Health Sector has taken initiatives to move into secondary level Health Care but the infrastructure in this area is weak and in some cases, very new.
- * OFPEP Steering Committee members have expressed the need for better communication between NGOs and Government Departments engaged in Agricultural activities

Opportunities for EE:

- * TGFO develops literacy and post literacy materials. The opportunity exists to assist the Field Office to incorporate environmental education concepts into those materials.
- * Demonstration sites, such as those for compost-making, use of live fencing, or for comparing the growth of inoculated nitrogen-fixing trees against the growth of non-inoculated ones, could be used as environmental learning sites for schools which are located close to them.
- * School children could be involved in helping set up and maintain demonstration sites. For example, the use of vetiver grass, and/or the making of compost could be set up within the school grounds to help educate both the school children and the adults in the community.

SECTION III

FINDINGS

Following are some of the major findings of this study.

1. There is an imperative need to achieve a common understanding of what is meant by 'Environmental Education and Communication'. The consultant encountered a broad range of meanings for this expression.
2. Most of the organizations which were visited are carrying out dissemination of information or training activities for development which have a conservation dimension, i.e. the wise use of natural resources. However, most of the conservation parts of these activities are unstructured, lacking specific objectives, follow through, continuity, or any form of evaluation.
3. Radio, a tool which has been found to be very useful for EE&C, appears to be presently under-utilized for this purpose here. However, newspapers carry environmental stories practically on a daily basis.
4. In general, formal Environmental Education and non-formal Environmental Education are being carried out independently of one another without a common vision or any holistic planning. The collaboration that exists, usually takes place at the very grass-roots level, when extension/field workers contact one another and work together to help fill skill gaps needed to accomplish their tasks.
5. There appears to be a trend for NGOs to take on an increasingly broader range of activities, from literacy programs, credit & savings, income generation, nutrition, to agricultural experimentation,. Yet, their skill base and manpower does not expand as fast. There is a danger that intended aspects of their work, i.e. conservation education, is being missed out as their efforts are dispersed.
6. The 'key' to greater participation in environmental activities seems to be motivation. Those organizations who are managing successfully to motivate individuals to take initiatives, either as volunteers or as experimenters or implementors have used approaches which merit closer study. These need to be objectively evaluated, with the possibility of wider use.
7. Resources for EE&C have been produced in the past, but they are not easily accessible now.
8. There appears to be a good mix of methods and approaches, including traditional drama, being used, specially for non-formal EE&C. However, there is little evidence that these methods and materials have been tested and evaluated.
9. The U.S. Peace Corps is taking very definite, constructive steps towards making participation in Environmental Education a priority for every volunteer. First- hand study of resources and action at headquarters, and visits to individual Peace Corps initiatives in the field verified their

stated aim. Initiatives being taken by individual volunteers (many of whom are teachers) are good examples of what can be accomplished when school and community serve each other. In this case, it is resulting in appropriate EE.

10. The approach used by the National Environment Agency, that of involving all sectors of the country and building consensus in the development of the GEAP, is having positive spin-off effects. Most of the organizations visited had a positive attitude towards the Agency, and a genuine will to begin to do their part to implement the GEAP (for which they feel ownership). It is important not to lose this momentum and to take advantage of the opportunity for collaboration.
11. Initiatives to introduce EE into the formal curriculum are presently fragmented. They need to be put into a broader, well-planned framework that will ensure that EE is integrated into other subject areas, and at different levels, as well as being a part of the Social and Environmental Studies subject for basic education. The development of a holistic environmental education strategy, for both formal and non-formal EE will also serve to better utilize complementary or supplementary materials, such as those being produced by the TIPE Project for formal EE, and to link the materials with Population Education, and with pre-service and in-service teacher training programs.
12. There appear to have been no formal efforts made to date, to integrate EE into tertiary education programs.
13. Little, if any attention is being given to the integration of EE into the Islamic Arabic schools.
14. In general, the manpower now being utilized in-country to develop EE&C programs, curriculum, and other materials, in both formal and non-formal EE, does not have training in Environmental Education as such.
15. Important events, apart from those at NEA, which have taken place recently in The Gambia in both government and non-government sectors (e.g. a new Education Policy, initiatives in early childhood and in-service teacher training, a new Conservation District, identification of EE as a priority area for Peace Corps and for other NGOs), have opened new possibilities for future EE&C endeavors.

SECTION IV SUGGESTED ENVIRONMENTAL EDUCATION AND COMMUNICATION STRATEGIES

A. Strategies

Following is a list of suggested strategies for future EE&C in The Gambia. These strategies were selected as being appropriate, after a study of the activities of existing organizations and resources available for EE&C (obtained from the survey), a review of existing policies, and an appreciation of the infra-structure, communication facilities, composition and distribution of target populations. Because these strategies were chosen so that they can be designed to meet needs within existing conditions, They have a good likelihood of success. They can be developed and implemented through the present infrastructure, and facilitated through one or more of the existing governmental and/or non-governmental organizations. In addition, they can be carried out with a minimum of additional inputs. They are all strategies which can be 'catalyzed' and coordinated by NEA, with technical assistance from 'GreenCOM'.

1. National Public Awareness Campaigns

Apart from the National Award Scheme, (Annex 1) public awareness campaigns which focus on a single theme, e.g. Cleanliness, Beautification, Tree-Planting, Water Conservation, Bush Fires, etc. could be carried out for a short period of time, with carefully-planned intensive participation from as many governmental and non-governmental bodies as possible. The main purpose of these campaigns would be to raise awareness of the general population, and to mobilize government and non-governmental organizations towards environmental protection and rehabilitation.

Example: A group of governmental and non-governmental agencies all trying to promote a specific topic, e.g. solid waste pollution, would meet regularly to plan, organize, monitor and evaluate an intensive campaign over a determined period of time (the duration would depend on available resources...time, money, manpower.) The appropriate time of the year for this event would be selected, possible participants co-opted, resources mobilized, etc.. During the campaign a series of events over time would be planned, utilizing multiple media (newspapers, radio, tape and video cassettes) and multiple approaches (public talks, special presentations, exhibitions, competitions, recognitions, special fund-raising, etc.)

2. Production of Audio/Visual Materials on Environmental Issues

People currently responsible for production of communication materials in various governmental and non-governmental agencies could be brought together regularly (as decided) to plan the development of specific materials for specific purposes. This would result in a 'pooling' of resources and thus greater productivity and cost effectiveness. The actual development of materials could then be carried out through the appropriate body or agency. The main purpose of this activity would be to increase the available resources, make better

use of existing resources for this purpose, and ensure that materials are available for all sectors of the population.

Example: A selected group of representatives from Governmental and non-governmental agencies who have the resources to produce audio/visual materials would be invited to a series of meetings (or workshops) with a similar group who is working to promote a particular aspect of environmental education, e.g. 'tree-planting', and who have expressed a need for audio/visual resources for it. Through discussion, the main objectives of EE with regards to this topic would be clarified, the main target populations would be selected, and plans would be made to produce a series of materials in this topic which would reach the various sectors of the population to which the environmental education in this topic is or will be delivered. These materials would then be appropriately designed for the specific delivery mechanisms which currently exist.

The group would also decide which one(s) of the organizations is(are) in the best position to be able to produce the required resources, and which one(s) could bear the cost of these materials or could obtain funding, and how best to pilot test the materials

The next step in this process would be to follow up the production of the materials (including the pilot testing)

An important step which also needs to be included is the introduction (training/orientation) of the materials to the users (e.g. extension workers, teachers, volunteers).

3. **Seasonal Calendar of EE&C Events**

A national 'Environment Calendar' can be produced, and its use promoted. Such a calendar would highlight a series of planned EE&C events, and would point out seasonal opportunities for emphasizing certain environmental education activities, such as bush fires in the dry season, tree-planting at the beginning of the rainy season. (Funds for its production might be available from the private sector.) This activity will achieve several purposes, e.g. promote study of the natural environment of The Gambia, stimulate the interest of the business community, the tourist industry, and the public at large, in the natural environment.

Example: Consultations would be held with experienced naturalists, scientists, wildlife, forestry and fishery experts in the country, who would be aware of unique events which take place, and hopefully, can be observed at different times of year in The Gambia (e.g. breeding season of a unique animal species, bird migrations, blooming of a special plant Photographs or illustrations of these unique events (possibly obtained through a competition) would be used to produce a seasonal calendar of the Gambia to help raise awareness of this unique, beautiful environment. Appropriate messages, where there is threat of habitat destruction, could be included.

4. **Cultural/Social Activities for Environmental Awareness**

In order to reach all strata of society, cooperation of existing clubs (music, art, sports, social, gardening) can be sought to arrange certain special events which would focus on an environmental theme or issue to raise the awareness of their members. The main impact of such an activity would be on the members of these 'special-interest' groups, with the expectation that they will continue to promote environmental activities.

Example: A popular well-known sports team might be persuaded to give up a Saturday to work along with a local youth group on an environmental rehabilitation project of their own choice.

Example: An organization, such as Rotary, or the Chamber of Commerce and Industry might be persuaded and assisted in planning and implementing an elegant, formal event, that would feature a well-known speaker on an environmental theme, or a special wild-life film/video.

Example: A local or national group would be approached and encouraged (and assisted) to carry out a special exhibition, eg. nature-art, rubbish-art, plants with special adaptations.

5. **Commerce and Industry Environment Plan**

To complement the NEA's Technical Services component, an Environmental Sensitization Plan can be developed with participation from representatives of commerce and industry.

The scope of the plan would have to be determined by the extent and level of support that such an activity would obtain from this sector of the population, but it can start with plans for a small number of activities in the first year, and then grow as more interest and support is engendered. The purpose of this strategy is to provide 'enjoyable' environmental experiences which are also educational, so that this component of the population will more readily understand and cooperate on environmental protection measures (e.g. regulations, control, monitoring).

Example: Efforts can be made to meet with the Chamber of Commerce and Industry or another industry-related organization to find out whether they would be interested in helping to sensitize their members on the impacts of commerce and industry on the environment. Suggestions of possible activities, e.g. debates, field trips, or a series of short talks, which would be of interest to them, and at the same time also raise their environmental awareness, could be discussed, and followed up.

6. **Intra-Ministerial Competitions**

With cooperation of the Ministries concerned, special competitions (with desirable prizes) can be organized to focus on 'green' concepts, attitudes and/or skills, e.g. a clean office campaign and competition, or competition for best recycling system, or best rubbish disposal arrangements.

Example: A commercial school or group, e.g. Secretaries Association, could be approached and, if interested, helped to organize a competition to motivate people working in offices to

clean and beautify their offices. Each Ministry could run its own competition, and award a prize and publicize the names of the winners. This would be done in all Ministries simultaneously in order to obtain national publicity.

7. **Children and the Environment Activities**

With support from agencies such as UNICEF, and other NGOs, special projects for children can be implemented. One project could be a compilation of pictures and thoughts about the environment by children, (such as one which was presented to the Heads of State at the Earth Summit by the Baha'i International Community through UNICEF). This project could be organized nationally with special presentations to government and traditional leaders. Implementors could be NGOs working with the Ministry of Education. The target population would be mainly the children, but also the government and traditional leaders who would receive the benefit of the thoughts and feelings expressed by the children.

Other possible projects are children's drama, music, poetry, debates and essay competitions, all of which have been found useful as vehicles for environmental education.

Example: The Ministry of Education could be approached to see whether it would be interested in working with the assistance of one or more NGOs to carry out, on a regular basis, at least one special environmental project per year in each school to raise the awareness of teachers and students. Together an appropriate, feasible activity can be chosen, out of options given (e.g. a compilation of pictures and thoughts about the environment, planting a certain number of shade trees in each school yard, studying and protecting each school's water source, developing a rubbish-disposal system for each school, an environmentally-friendly project of their own choice).

It is suggested that this kind of a project should be first piloted, trying it out with a few schools at a time in order to see what kind of logistical and support measures are entailed. For example, a poster project wouldn't be appropriate, if the schools will not be able to provide paper for the students to participate.

8. **Library and Resource Center EE&C Services**

Environmental Education resources, available in-country, and additional relevant ones, can be collected and made accessible at libraries and through appropriate resource centers. It is necessary to develop a system for the use of environmental resources, which will include accessibility to the materials in the NEA's Documentation/Resource Center. An effective environmental information exchange system will help facilitate all EE&C efforts in the country.

Example: National library services, resource center operators, and other library operators (e.g. in educational institutions) can be contacted, and brought together to investigate ways and means to build up their environmental education library resources, and find ways to make them more accessible and appealing to their target audiences. Also a system which will allow

them to tap into the NEA's resources will need to be developed jointly. This is an exercise which has to be developed over time.

9. **National Assembly of Women and the Environment**

With support from "World-Wide Women in the Environment" it may be possible to form a Women and the Environment forum to organize a national assembly which would bring together selected women who have been successful in some way or another to mobilize others in sustainable development. This would give them an opportunity to share success stories which may be emulated elsewhere.

Example: A successful international example of this was the Global Assembly of Women and the Environment, which took place in the United States as one of the preparatory conference for the Earth Summit in Rio in 1992. Since then, several national and regional conferences have been held, at least two of them in Africa (in Kenya and in Southern Africa in 1993).

A forum can be formed, or an existing NGO can act as a forum to organize the Assembly. The forum can then contact the World Wide Link of Women in the Environment for specific details on planning and organizing such an event. The forum will need a base from which to operate and will need to work over a period of several months to make all preparations.

10. **Integration of EE into Extension Programs**

A review of existing goals and specific objectives of the various extension services wishing to participate in environmental awareness and/or education, should be undertaken in order to ensure that well-identified and specific environmental protection and rehabilitation concepts, skills and attitudes are being promoted in a planned, deliberate, and systematic manner.

This survey showed that it is necessary to re-vitalize, and in some cases, initiate, the environmental education component of existing extension services. Environmental education is a complex process of acquiring knowledge, skills, and attitudes about environmental issues/problems, but it also has to end in action (participation) towards the resolution of those issues/problems. Presently, the extension services and workers seem to be focusing primarily on skill-development. To help target populations reach the point of motivation to take individual or collective action (at which point the skills come into play) requires more holistic approaches to environmental education than those presently seen in evidence.

Technical assistance may be used to increase environmental awareness, and to teach specific strategies and activities for extension non-formal environmental education, to extension workers in both governmental and non-governmental agencies. In general, they are requesting in-service training in EE&C concepts and methods.

Example: Possibly, NEA's role in this respect, will be to hold individual consultations with each extension service, and to offer to link specific extension services to technical assistance

in order to plan how best to do this for each type and size of agency or organization, and when best to carry it out.

11. **Integration of EE into Formal Education Programs**

An important function for the Environmental Education Working Group would be to facilitate the formulation of a broad national framework of EE goals and objectives for early childhood, primary, secondary, and tertiary education, followed by a review of existing curricula. The next step would be to use interdisciplinary (using existing subjects) and multidisciplinary (special EE courses or modules) approaches to achieve the goals and objectives as set out in the broad framework.

Example: The process should start with consultation with the appropriate Ministry of Education Officer (who has expressed interest in these initiatives) to determine how best to bring together the relevant officers from within the Ministry, who would participate in the process of developing a broad framework for EE, and what kind of support is required. Then a plan of action would be worked out to plan a scope of work.

There also appears to be a need to coordinate TIPE Project EE materials development activities with those of the Curriculum Development and Research Center to ensure that all efforts are utilized and that the materials which are being developed in the Project are complementary or supplementary to existing textbooks. The study showed that both of these curriculum-development efforts seem to be taking place without much interaction or coordination between them.

Example: NEA could share this finding of the survey with the relevant agencies, and offer technical assistance to help facilitate coordination.

Advocacy and support for the integration of EE into in-service teacher education programs is required to focus attention to this need. Communication could be initiated between the National Environmental Agency and the Ministry of Education to support the addition of a fourth in-service training specialist in the area of Social and Environmental Studies and to modify the RESET Project to integrate the environmental dimension. Discussion with the Project coordinator indicates that there is strong desire for this initiative, and that support from NEA would be helpful.

Example: A meeting to discuss this matter with the Ministry of Education and with ODA, as soon as possible, is required.

NEA could offer technical assistance to assist with the development of an EE in-service teacher training curriculum and teaching materials which would fit in with the present in-service training plan.

12. **Use of Audio/Visual Resources**

Considerable resources are apparently available in the country, but a shortage of space and manpower makes storage and accessibility difficult. When contacted, only a few organizations had brochures or fact sheets about their purpose and activities. Most said there had been something prepared at some time or another, but it was no longer available or difficult to obtain. Perseverance and special efforts to obtain some materials were successful. Thus, the following is recommended:

- * Technical assistance could assist in improving organization of resource centers, while at the same time ensuring the collection and accessibility of environmental materials
- * Many of the written materials, from simple information pamphlets to school texts have been introduced without any or with insufficient trial testing. Therefore there is a need for more pilot studies to study audience perception and use. This would help ensure that materials produced are appropriate and cost effective
- * To help ensure that materials such as posters can be easily produced and will last longer, two additional pieces of equipment, apart from that presently seen, would be useful, i.e. an opaque overhead projector, and a laminating machine.

13. **Eco-Tourism**

A swift appraisal shows that there are excellent opportunities to promote protection, rehabilitation, and wise use of existing natural resources through eco-tourism. The tourist industry is growing, and local people are sensitive to the negative effects of tourism. Conversations with tourists revealed the need for some interventions. (For instance, a tour operator collected the drink cans from a group of tourists in a bus, then opened a window and threw them out!) On the other hand, tourists have time on their hands, and it is a wonderful opportunity to raise their environmental awareness while they are enjoying the aesthetic beauty of the Gambian environment.

15. **Interpretation Centers**

Interpretation Centers at National Parks and Reserves are needed. Specialized skills in the area of interpretation which could be rendered in-service to wildlife personnel who are in charge of the centers, should produce results. For example, in one of the reserves which was visited, a small room is available for a resource center, and there are some good resources (e.g. maps, posters, books,) in boxes. Those responsible expressed the need for technical assistance to help develop an interpretation center, organize the materials for accessibility, and possibly even update an existing Environmental Education Center. Opportunity exists for planning EE&C activities for groups of school children who visit the reserves and parks.

16. **Research**

Research (including action research) is needed in order to evaluate methods and materials being used in The Gambia for EE&C.

Example: The Soil and Water Conservation Unit, which has been using a unique approach to Environmental Education for a long time, is about to begin a new conservation district. This is a wonderful opportunity to do a base-line study to evaluate that methodology.

There is also a need to encourage efforts which link results of research to community/ and to extension communications.

Example: Support could be given to re-continue the Agricultural extension newsletter from the Agricultural Communication Unit.

17. **Environment Clubs**

Environment clubs have been found to be very effective in mobilizing youth for the environment. The establishment of 'wildlife' clubs was included in the planning report of King West National Park Integrated Conservation and Development Project.. Presently, no particular agency (governmental or non-governmental agency) seems to be particularly promoting their development. It is an initiative which would fit in well under the Wildlife Department's Education and Extension activities. The four Education Centers at Kanifing, Brikama, Basse, and Kerewan could serve as regional centers for Environment Club activities. Technical assistance would assist in drawing up introductory 'activity packages' and other required materials. Examples of activities which could be undertaken include, research/study projects on the surrounding natural environment, environmental rehabilitation projects, (such as soil erosion control, water protection), clean-up campaigns, field trips, development of nature trails around schools or centers, tree-planting.

Example: A study should be undertaken to prepare the groundwork for the development of a national conservation club program. Technical assistance would provide experiences from other countries who have successful environment club programs, e.g. Swaziland, Botswana and Bophuthatswana.

18. **EE Radio Programs**

A well-planned, entertaining and informative series of radio programs for the purpose of disseminating specific environmental messages and raising public awareness would reach a large segment of the population. However, to ensure that the programs are well-received, a considerable amount of time needs to be given for its development.

Example: If agreed upon, technical assistance would work with Public Information Services to help with planning, provide in-service training and work with the Unit on the development of programs and piloting and evaluation.

19. **Non-Governmental Organizations in EE&C**

According to recent studies, only about nine non-governmental organizations make truly relevant and significant interventions in relation to Environment and Natural Resource Management. These are Peace Corps, Action Aid, Worldview International, Gambia Baptist Mission, Methodist Mission (Agricultural Program), CUSO, FORUT, Gambia Family Planning Association, and Save the Children/USA. It is recommended that TANGO, the

coordinating body of NGOs, organize representatives of these, and possibly of other NGOs now interested in carrying out EE&C activities, into an ad hoc committee which would have a direct link to the Environmental Education Working Group through TANGO. In this way, these NGO's will be included in the EE&C national planning and coordinating process.

20. **Environmental Education Working Group**

Based on the assessment of organizations involved with EE&C, which was carried out during this consultancy, it is suggested that the composition of the Environmental Education Working Group" include the heads or designated representatives of the following institutions and organizations:

Office of the President

National Environment Agency

Office of the Vice President

Women's Bureau

Ministry of Natural Resources

Department of Forestry

Department of Wildlife

Ministry of Education

Office of Director of Schools

Non Formal Education

Curriculum Development and Research Center

The Gambia College School of Education

Ministry of Agriculture

Agriculture Communication Unit

Department of Livestock Services

Ministry of Health

Health Education Unit

Ministry of Local Government and Lands

Department of Community Development

Ministry of Information and Tourism

Department of Information Services

Tourism

Non-Governmental Organizations

TANGO

It is suggested that the resident Environmental Education technical advisor be a non-voting member of the Environmental Education Working Group.

Functions of the Environmental Education Working Group

Although it is expected that the Working Group will determine its own terms of reference, it is suggested that the following functions be considered for discussion:

- * To help all those engaged in Environmental Education and Communication in The Gambia, reach a common understanding of the what is meant by Environmental Education, so that all EE efforts will be directed through a shared vision, and harnessed to achieve the same goal.
- * To develop a broad national framework for carrying out EE in The Gambia
- * To facilitate joint planning and implementation of national and international EE campaigns, programs and events, e.g. World Environment Day.
- * To promote and coordinate EE efforts of governmental and non-governmental organizations so that EE will be channeled as widely as possible to all segments of the population.
- * To promote and facilitate educational, training, communication and research activities in Environmental Education.
- * To identify needed studies, strategies and research in Environmental Education and Communication
- * To liaise with the Agriculture and Natural Resource Management and the Environmental Information Management Working Groups to ensure that holistic, integrated environmental education and communication takes place.

B. Criteria for Determining Priorities

The point has been made that country and NEA conditions, in general, are very conducive for a 'Heating Up' approach, that is catalyzing EE initiatives in all sectors simultaneously. However, there are certain criteria that can be used to determine where one should start.

First of all, the priority program areas clearly identified in the GEAP, i.e. Management of Natural Resources, Environmental Health, and Energy will be used as the basis for selection. There are many EE&C activities, e.g. raising public awareness, which cross-cut through the three areas. Next, the focus program area of the ANR Project, of which EE&C "GreenCOM" is a component, is Management of Natural Resources. Thus, initiatives which fall within this program area are given priority.

Since NEA is not an implementing agency, and the Environmental Education Working Group is expected to play more of a facilitating, coordinating, and monitoring role, approaches which require the infusion of EE&C into other initiatives need to be taken at the right time, specially in the case of projects or programs which are just beginning, or have a specified duration. In such cases, the EE&C intervention can only take place at a certain time. This is the case with strategies such as integration

of EE into the in-service training program (RESET) of the Ministry of Education which is being supported by ODA.

Because of the urgent to raise general awareness about the state of the environment, and to mobilize public participation for environmental protection and rehabilitation, initiatives which make an impact on a large sector of the community in a cost-effective manner, e.g. public awareness campaigns, are given priority.

Being in a position of meeting a perceived need is a consideration. In cases, where an agency or organization has already identified an important EE&C need, then support for such an initiative will be best utilized.

Efforts which will have a 'multiplier' effect.

Another criteria which can be used is availability of resources. Where the resources already exist to carry out a particular initiative, then it is important to seize the opportunity and implement the activity.

The availability of technical assistance is necessary to ensure the success of some initiatives which require specific skills, e.g. curriculum development.

The need to involve as many 'players' (implementors) as possible, so that there is a sense of ownership in this national EE&C initiative, is also important.

Thus bearing these considerations in mind, some of the suggested strategies have been prioritized.

1. **Environmental Award Scheme** - This activity should have an impact on a large segment of the population. By designing several competitions for different components of the national community, and conducting these simultaneously, the opportunity is created for everyone to take part. At the same time, by involving different organizations and agencies as facilitators, their own awareness is increased, and the way is paved for their further involvement in environmental activities on a national level.
2. **In-Service EE for Primary School Teachers** -The opportunity exists now to provide technical assistance towards the integration of an EE dimension to an in-service education program which is just beginning. This program, Re-Education Service for Teachers (RESET) aims at developing a cadre of teachers who have had an in-service program in the areas of Math, English, and Science. Integration of the fourth major area of primary education, i.e. Social and Environmental Studies, follows naturally. .
3. **Development of a First Year EE Course at The Gambia College** - NEA' is in a position to assist (through technical assistance) the process of developing a basic first year-year environmental sensitization course . Such a course would have an impact on pre-service education in the graduates of four Schools, Agriculture, Education, Nursing, and Public Health, and have a long-lasting 'multiplier effect'. The reason why such a course would be

designed to be integrated into the program of studies of the four schools is because in all four cases, their graduates will be serving at different levels in the community, but they will all be strong opinion leaders.

4. **In-Service Training Courses for Extension Officers/Workers** - In- service training courses in EE approaches and methodology to Agriculture, Forestry, and other extension workers who have an education responsibility would have a high 'multiplier effect' and serve several other purposes. Initially, it will serve to highlight the importance of the education aspect of their work (which, in some cases, has been taking a back-seat). It will also help to share a common vision and understanding of EE among the various extension agents. population, and have a 'multiplier' effect.
5. **Women in the Environment National Assembly** - Special efforts have to be made to provide EE to women who are the primary natural resource managers in the country. The purpose of this assembly would be to bring together women, who have 'success stories' of mobilizing others to take some kind of action in response to an environmental issue or problem. Together, they will share their stories, give ideas to one another, and make plans to help other women become more active.
6. **Environment Clubs** - It is necessary to involve the youth in EE, and the infrastructure to reach youth (in schools and through existing agencies, e.g. the Ministry of Youth, Sports and Culture) exists. Environment club activities opens the door for youth to build a bridge between school and the community. Club activities, which are carried out in the environment, for the environment and about the environment can have long-lasting effects. Environment clubs are an effective medium for providing environmental education which results in action.
7. **EE Radio Programs** - Radio reaches a large number of people with relatively few inputs, and has been found to be a very effective medium for sensitization campaigns. Systematic use, using different techniques, e.g. radio drama, quizzes, talks, music, interviews, folk stories, and possibly a series of different types of programs catering for different age groups/interests, should be developed to disseminate environmental information and raise awareness.
8. **Cooperative Development of Audio/Visual Materials** - There is a need for more materials in the field, and a need to send messages which do not conflict with one another. A good way to accomplish this, and to maximize the use of available resources (e.g. manpower and equipment) is to bring all those who produce EE teaching materials with those who will use them to teach so that they can jointly design and produce them for the various sectors in the community.
9. **Research on EE&C Methodology** - The opportunity to collect baseline data to measure the impact of EE&C methods for a distinct rural population exists now. For instance, plans are being drawn up by the Soil and Water Monitoring Unit to establish a new conservation district which will be the recipient of a lot of field extension. This type of endeavor presents the opportunity for research on different approaches over a long period of time. However, baseline information needs to be collected before any interventions take place. If this is not

a good starting point, others should be found. It is important to research EE methods and techniques so that we can improve the efficiency and effectiveness of EE&C interventions.

Before a final work plan is drawn up for GreenCOM interventions in environmental education, it is important that consultation take place with ANR Project personnel to ensure that the work of the various components of the ANR Project will be strongly supported by appropriate EE&C activities. Following that, there will be a need for a close working relationship.

SECTION V

TIME FRAME FOR EE&C ACTIVITIES

A. One Year Draft Time Frame for EE&C

Table 1 in the following page, is a suggested 12-month time frame, or schedule, for the National Environment Agency to consider using to implement, or, in some cases, begin to implement some of the suggested EE&C activities which have been identified as being priorities. However, before a final work plan is developed, it is suggested that consultation take place with ANR Project personnel, and with representatives of the implementing institutions, to ensure that everyone concerned agrees to the course of action.

B. Implementors and Activities

Table 2, which follows, lists the government departments, organizations, and agencies which would play an important role in the implementation of the suggested EE&C activities. They would be the ones with whom the National Environment Agency and the EE technical advisor would work closely to achieve the intended objectives.

Table 2: Implementors and Activities

Implementors	Production of A/V Materials	Inservice Training for Extension Services	Integration of EE into Curriculum	Integ. of EE into Teacher Trng Pre-service & Inserv	Environmental Clubs	Assembly of Women in the Environment	EE Radio Programmes	EE Research
Forest Ext.		*					*	*
Wildlife Ext.		*			*		*	*
Agriculture Ext.		*					*	*
Health Ext.	*	*				*	*	*
Community Dev.		*				*	*	
SWMU		*			*		*	*
Agriculture Com.	*				*		*	*
Public Info. Unit	*				*		*	
Health Ed. Unit	*						*	
Ed. (Schools)			*		*		*	
Education (Insp.)			*		*			
Ed. (Teacher Trng.)	*		*	*	*			
Ed. Early Childhood			*	*				
The Gambia Coll.	*		*	*			*	*
CDRC	*		*	*			*	*
MDI			*				*	
Women's Bureau	*	*				*	*	
GTTI				*			*	
TANGO	*				*	*	*	
Peace Corps	*	*	*	*	*	*	*	*
ODA					*		*	
Catholic Rlf Serv.	*					*		
Methodist Mission	*					*		
Action Aid	*					*		*
Save the Children	*					*		*
Chimpanzee Rehab	*				*	*		*
Special Ass'ns	*					*		
World View Int.	*						*	

Table 1: Time Frame for Implementation of EE&C Activities

	MONTHS 1994											
	January	February	March	April	May	June	July	August	September	October	November	December
Environmental Award Scheme												
InService Training for Extension & PCVs												
Integration of EE at The Gambia College												
Integration of EE into Teacher InService Training												
Integraton of EE into GT_ Programme of Studies												
Promote the Establishment of Conservation Clubs												
Plan & Implement an "Assembly of Women in the Environment"												
Facilitate Research for EE Methodology in new Conservation District												
Promote the Development of EE Radio Programme												
Begin Process of Cooperative Development of EE A/V Materials												

ANNEX A

ENVIRONMENTAL AWARD SCHEME

Introduction

One of the main policy objectives of the Gambia Environmental Action Plan (GEAP) is the promotion of environmental awareness through popular participation. To help achieve this objective, one of the activities which is being launched by the National Environment Agency is a National Environmental Award Scheme.

Objectives

The main objectives of this award scheme are to:

1. increase awareness of the environment,
2. promote and encourage public participation in environmental management,
3. promote the use of environment-friendly technologies,
4. demonstrate government's recognition of individual/community efforts in environmental management,
5. reward individuals or groups that participate in good and effective environmental and natural resources management practices,

Participation

The following are invited to participate in this award scheme:

Individuals
Educational and vocational institutions
Women's groups
Community-based groups
indigenous/local non-governmental organizations
private sector (businesses/industries)

Criteria for Entries

The following activities are eligible to be submitted:

1. environmental activities which are conceptualized and implemented by interested individuals or groups,
2. activities which enhance the environment through sound and/or innovative natural resource management, health education, or energy use,

3. achievements of individuals or groups that have campaigned, championed, or advocated successfully for environment and natural resources in a specific area, region, or at national level.

(Note - if there are any investment costs, e.g. human, material and financial, then these should be borne by the interested individuals or groups)

Themes

The main theme for the urban and semi-urban areas (Greater Banjul Area and growth centers) is "Enhanced Surroundings". The main theme for the industrial areas is "**Clean Industry and Enterprise**". The main themes in the rural areas are "Appropriate Technology" and "Community-Based Sustainable Development".

Time Frame

The Award Scheme will run from February until the end of April, when acceptance of entries will close. Verification of activities and judging will take place during May. The winners will be announced on June 5th which is World Environment Day.

Strategy

There will be several types of competitions going on simultaneously, involving different sectors of the community.

In addition to prizes to be awarded for each competition, each winner will receive a Certificate of Achievement from the National Environment Management Council.

Competition No. 1 - Clean Schools; Clean Surroundings

Participants: all schools and educational and vocational institutions

Activities: clean-up activities within school premises and grounds, or in surrounding community

Facilitating Agency: Ministry of Education through their Regional Offices

Prizes: 2 floating trophies (cups) with engraved name of the winning school and the year: one for cleanest/safest school premises, and the other for school with best clean-up project.

(*Note - There will also be prizes for the runner ups. These will be in the nature of school equipment, e.g. sports, science, agriculture.)

Competition No. 2 - Women and Environment

Participants: Women's groups and associations

Activities: environmentally-sustainable projects, e.g. tree-planting, cooperative vegetable production, cooperative management of water, waste, fuel, or clean-up/beautification activities.

Facilitating Agency: The Women's Bureau

Prizes: Labor-saving devices and maintenance for 1 year.

Competition No. 3 - Community Sustainable Development

Participants: Individuals, groups, associations

Activities: environmentally sound, innovative activities which improve the quality of life

Facilitating Agency: Community Development

Prizes: Labor-saving devices, with maintenance for 1 year.

Competition No. 4 -Appropriate Technology

Participants: individuals

Activities: individual entries of environmentally-friendly innovations to facilitate work of any kind.

Facilitating Agency: Gambia Technical Training Institute (GTTI)

Prizes: Tools

Competition No. 5 - Clean Business and/or Industry (Greater Banjul Area) and Growth Areas

Participants: public companies and/or industries

Activities: actual practice of clean technology, appropriate waste disposal, clean and safe premises (to be judged by inspection)

Facilitating Agency: Chamber of Commerce and Industry or municipalities
or municipalities

Competition No. 6 - Clean Enterprise

Participants: businessmen or businesswomen

Activities: entries by individual entrepreneurs (businessmen or businesswomen) for clean technology, appropriate waste disposal, clean and safe premises

Facilitating Agency: Ministry of Trade, Industry and Employment

Prizes: Environment-friendly equipment

Competition No. 7 - Environmentalist of the Year

Participants: individuals

Activities: entries to nominate an individual who has promoted, championed, or advocated successfully for the environment in a specific locality, region or at national level. (these must not be professionals, whose employment or work is already in the field of the environment)

Facilitating Agency: National Environment Agency, in collaboration with Commissioners

PROPOSED SCHEDULE OF NEA ACTIVITIES FOR IMPLEMENTATION OF THE NATIONAL ENVIRONMENTAL AWARD SCHEME (1994)

JANUARY	<ul style="list-style-type: none">* Press release.* Drafting and mailing of letters to the facilitators of Award Scheme Competitions to enlist their assistance and invite them to a planning meeting.
FEBRUARY	<ul style="list-style-type: none">* Meeting with representatives of the facilitating institutions/organizations and meeting with the public media* Visits to the Divisions to explain the Award Scheme to the Commissioners and enlist their assistance.* Co-opting assistance of extension services (Agriculture, Forestry, Health, Community Development) and NGOs which have field workers to publicize the Award Scheme and assist with submission of entries.* Preparation of materials - entry forms, logo, award certificates from NEA, posters, stickers, radio spots, etc.* Determine prizes
MARCH	<ul style="list-style-type: none">* Distribution of entry forms and on-the-spot instruction on how they will be used* Extensive publicity through all available media - radio, newspapers, and extension services* Visits to the Divisions to make an initial appraisal of the process* Meeting with facilitators to check on progress* Confirmation of prizes and purchase of trophies
APRIL	<ul style="list-style-type: none">* Carry out another intensive media campaign to announce closing dates for entries (at the beginning of April)* Check with all facilitators and with Commissioners to see whether entries for all competitions are being turned in.* Carry out verification and judging (beginning on the last week of April) at the Divisional level

MAY

- * Collect winning entries from the Divisions
- * Announce Division winners over the radio. Otherwise make radio and newspaper announcement to keep the public informed of developments
- * Carry out verification and judging nationally (NEA will play a large role in this process)
- * Make plans for special event to present prizes
- * Publicize World Environment Day (June 5th) and announce any commemoration events.

JUNE

- * On June 5th, World Environment Day, present winners to the world!
- * Hold an evaluation and follow-up meeting

NATIONAL AWARD SCHEME-NATIONAL ENVIRONMENT AGENCY, THE GAMBIA
(DRAFT) ENTRY FORM

FILL THIS FORM OUT AND RETURN IT TO:

1. Name of Individual or Group _____
2. Address:_____Tel: _____
3. Competition Number_____ Competition Name _____
4. Title of Name of your entry (your activity or project):

DESCRIBE YOUR ENTRY OR PROJECT IN DETAIL (Use back of this form if needed)

5. What is being done?
6. Where exactly is this taking place?
7. Why are you doing this?
8. Who is doing it? (if more than one person, give number of people carrying it out)
9. Who is paying for it, or who is contributing to it?
10. Who benefits from this activity?
11. How do YOU think activity specially benefits the environment?

**(Draft of Suggested Letter from NEA to Ministry of Education
Competition No. 1)**

NATIONAL ENVIRONMENT AGENCY

Permanent Secretary
Ministry of Education

Dear Sir,

National Environmental Award Scheme

In an effort to help achieve the Gambia Environmental Action Plan (GEAP) objective to promote environmental awareness through popular participation, we are launching an Environment Award Scheme, which will entail running several environmental competitions simultaneously in order to reach all segments of the population.

Because our hope for a better environment lies with our children, we feel that participation by the schools and other educational institutions is imperative. We also feel that strong support from the leadership in your Ministry, specially yourself, will ensure credibility and greater participation by all. Thus, we are kindly requesting your cooperation in running this competition. It would entail your sending a circular (which we would be glad to help prepare) from your office to notify all schools about the competition, and then to utilize the services of the Regional Education Officers to collect and process three entries per school, selecting the three top entries from their region and submitting them to your headquarters for final selection of the national winner.

By this letter, we are inviting you (or your designated representative) to a meeting to jointly make specific plans for the competition. This meeting will be held on _____ at _____ o'clock at _____.

We thank you for your cooperation, and look forward to seeing you then.

Yours sincerely,

Ndey - Isatou Njie
Executive Director,
National Environment Agency

MINISTRY OF EDUCATION

TO ALL HEADS OF SCHOOLS AND EDUCATIONAL INSTITUTIONS

Dear Colleagues,

National Environmental Award Scheme

In order to promote environmental awareness, the National Environment Agency has launched an Environmental Award Scheme.

Our Ministry is assisting in this endeavor by holding the "Clean School; Clean Surroundings" competition, and I am kindly requesting you to give it high priority and full support. We want all schools to take part. Here's how:

1. Announce the competition to your staff and to your pupils, and involve them in planning your school's participation.
2. You are free to hold an inter-school competition among the different classes or you can select one main project for the whole school. The project can be any kind of clean-up and/or beautification activity carried out to improve your own buildings and grounds (such as making a school garden, woodlot, compost heap, rubbish pit, building pit latrines, cleaning and beautifying each classroom).
3. Otherwise, your school may choose to carry out any clean-up and/or beautification activity for the community (such as cleaning and making waste disposal provisions for a local market, or a shopping area or bus stop, or cleaning the roadsides for a certain distance along a heavily-used road, or building pit latrines or planting trees in public places).
4. Arrange for a local authority or regional officer (e.g. inspector, extension worker) to verify your project. This means that once you have carried out your project, you must write an account of it, stating what was done, how many students took place, how long it took, the name and address of your school, and any other important details. Then, the local authority must verify it. He/she must state that it took place, and sign and, if possible, stamp it. This account is to be sent to your Regional Education Officer.
5. Entries will be accepted only up to the middle of April, when they will be judged in each Division.
6. Four top projects from each Division will then be submitted to the Ministry of Education Headquarters for judging at national level. The winners will receive their prizes on June 5th - World Environment Day.

I thank you very much for your cooperation, and look forward to receiving your entry.

Yours sincerely,

Permanent Secretary,
Ministry of Education

NATIONAL ENVIRONMENT AGENCY

Hon. Secretary,
Chamber of Commerce and Industry

Dear Sir/Madam,

National Environmental Award Scheme

In an effort to help achieve the Gambia Environmental Action Plan (GEAP) objective to promote environmental awareness through popular participation, we are launching an Environment Award Scheme, which will entail running several environmental competitions simultaneously in order to reach all segments of the population.

Because of the vital role which the business and industrial sector of our community plays in environment and development, we believe that one of the most important competitions of this award scheme will be a "Clean Business and Industry" Competition to which all companies and industries in the Greater Banjul area or in growth areas will be eligible to compete. They will be judged on clean technology, appropriate waste disposal, and clean/safe premises.

We are inviting you to please help us to carry out this competition within the business/industrial community and, if possible, to also donate a floating trophy (cup or plaque) to the winning business or company

By this letter, we are inviting you (or your designated representative) to a meeting to jointly make specific plans for the competitions. This meeting will be held on _____ at _____ o'clock at _____.

We thank you for your cooperation, and look forward to seeing you then.

Yours sincerely,

Ndey - Isatou Njie
Executive Director,
National Environment Agency

NATIONAL ENVIRONMENT AGENCY

Director
Department of Community Development

Dear Sir,

National Environmental Award Scheme

In an effort to help achieve the Gambia Environmental Action Plan (GEAP) objective to promote environmental awareness through popular participation, we are launching an Environment Award Scheme, which will entail running several environmental competitions simultaneously in order to reach all segments of the population.

One of the most important competitions will be "Community Based Activities for Sustainable Development". It is very important to identify and to recognize activities being carried out at community level, which raise the quality of life but still ensure sustainability through appropriate use of natural resources.

We have been impressed by your organization's efforts to promote such activities throughout the nation, thus, we are inviting you to help us run this competition. It would mean using your community development officers in the field to identify eligible projects and to help the individuals or groups concerned enter the competition. We would also like your assistance in selecting the winners at Division level.

By this letter, we are inviting you (or your designated representative) to a meeting to jointly make specific plans for the competitions. This meeting will be held on _____ at _____ o'clock at _____.

We thank you for your cooperation, and look forward to seeing you then.

Yours sincerely,

Ndey - Isatou Njie
Executive Director,
National Environment Agency

NATIONAL ENVIRONMENT AGENCY

(to Commissioner in each Division)

Dear Sir,

National Environmental Award Scheme

In an effort to help achieve the Gambia Environmental Action Plan (GEAP) objective to promote environmental awareness through popular participation, we are launching an Environment Award Scheme, which will entail running several environmental competitions simultaneously in order to reach all segments of the population.

One of the most important of these competitions will be "The Environmentalist of the Year" award. We would like to honor an individual or a group which has campaigned, championed, or advocated successfully for the protection and enhancement of our environment. (Professionals or groups with employment or remuneration in the field of environment will not be eligible.)

You are in the best position to know which individuals or groups in your Division are successfully promoting the environment.

Therefore, we are kindly requesting you to assist us with this endeavor, aimed at raising the level of environmental awareness and sensitivity, by helping us verify and judge entries at Division level. We would like to see this award scheme be a great success.

We will shortly be contacting you to make an appointment to meet you to discuss the Environment Award Scheme, and the role which we are kindly requesting you to play.

Thank you for your cooperation.

Yours sincerely,

Ndei Isatou-Njie,
Executive Director
National Environmental Education Agency

NATIONAL ENVIRONMENT AGENCY

**Principal Secretary,
Ministry of Trade**

Dear Sir,

National Environmental Award Scheme

In an effort to help achieve the Gambia Environmental Action Plan (GEAP) objective to promote environmental awareness through popular participation, we are launching an Environment Award Scheme, which will entail running several environmental competitions simultaneously in order to reach all segments of the population.

We would like to mount a "Clean Enterprise" competition in which small business owners could participate. Prizes would be awarded on the basis of clean/safe premises, appropriate technology, and appropriate waste disposal.

Since your Ministry is vitally concerned with trade and entrepreneurship, it would be very helpful and appropriate if you would be our partners in running this competition for the award scheme. We need your assistance in verifying and judging the entries.

By this letter, we are inviting your Ministry (you or your designated representative) to a meeting to jointly make specific plans for the competitions. This meeting will be held on _____ at _____ o'clock at _____.

We thank you for your cooperation, and look forward to seeing you then.

Yours sincerely,

Ndey - Isatou Njie
Executive Director,
National Environment Agency

NATIONAL ENVIRONMENTAL AGENCY

Secretary,
Women's Bureau

Dear Sir,

National Environmental Award Scheme

In an effort to help achieve the Gambia Environmental Action Plan (GEAP) objective to promote environmental awareness through popular participation, we are launching an Environment Award Scheme, which will entail running several environmental competitions simultaneously in order to reach all segments of the population.

Since rural women are at the forefront of activities dealing with development and management of natural resources, we would like to encourage and recognize their commendable efforts. Thus, we are planning to hold a competition, "Women and the Environment", for women's organizations and associations. Eligible entries would include any activities or projects which promote sustainable development, such as income generating activities which show good management of natural resources, projects dealing with clean-up activities, vegetable gardens, protection of water sources, tree-planting, and use of appropriate technology.

Since your Bureau is trying to promote these kinds of "grass-root" activities, we would like to request that you join us in this endeavor, and be our facilitator of this competition.

If the Women's Bureau is interested in helping us run this competition, will you please come (or send your designated representative) to a meeting to jointly make specific plans for the competitions of the award scheme. This meeting will be held on _____ at _____ o'clock at _____.

We thank you for your cooperation, and look forward to seeing you then.

Yours sincerely,

Ndey - Isatou Njie
Executive Director,
National Environment Agency

NATIONAL ENVIRONMENT AGENCY

Mayor/Town Clerk
Greater Banjul Area

Dear Sir,

National Environmental Award Scheme

In an effort to help achieve the Gambia Environmental Action Plan (GEAP) objective to promote environmental awareness through popular participation, we are launching an Environment Award Scheme, which will entail running several environmental competitions simultaneously in order to reach all segments of the population.

Because of the vital role which the business and industrial sector of our community plays in environment and development, we believe that one of the most important competitions of this award scheme will be a "Clean Business and Industry" Competition to which all companies and industries in the Greater Banjul area or in growth areas will be eligible to compete. They will be judged on clean technology, appropriate waste disposal, and clean/safe premises.

We are inviting you to please help us to carry out this competition within the business/industrial community and, if possible, to also donate a prize to the winning business or company.

If your organization is interested in helping us to run this competition, will you please come (or send your designated representative) to a meeting to jointly make specific plans for the competitions. This meeting will be held on _____ at _____ o'clock at _____.

We thank you for your cooperation, and look forward to seeing you then.

Yours sincerely,

Ndey - Isatou Njie
Executive Director,
National Environment Agency

NATIONAL ENVIRONMENT AGENCY

Director
Department of Community Development

Dear Sir,

National Environmental Award Scheme

In an effort to help achieve the Gambia Environmental Action Plan (GEAP) objective to promote environmental awareness through popular participation, we are launching an Environment Award Scheme, which will entail running several environmental competitions simultaneously in order to reach all segments of the population.

One of the most important competitions will be "Community Based Activities for Sustainable Development". It is very important to identify and to recognize activities being carried out at community level, which raise the quality of life but still ensure sustainability through appropriate use of natural resources.

We have been impressed by your organization's efforts to promote such activities throughout the nation, thus, we are inviting you to help us run this competition. It would mean using your community development officers in the field to identify eligible projects and to help the individuals or groups concerned enter the competition. We would also like your assistance in selecting the winners at Division level.

By this letter, we are inviting your Department (you, or your designated representative) to a meeting to jointly make specific plans for the competitions. This meeting will be held on _____ at _____ o'clock at _____.

We thank you for your cooperation, and look forward to seeing you then.

Yours sincerely,

Ndey - Isatou Njie
Executive Director,
National Environment Agency

(Suggested Letter to Invite the Public Media to a Meeting to Explain the Environmental Award)

NATIONAL ENVIRONMENT AGENCY

TO: Representatives of the Public Media
(newspapers, radio, magazines)

Dear Sir,

National Environmental Award Scheme

In an effort to help achieve the Gambia Environmental Action Plan (GEAP) objective to promote environmental awareness through popular participation, we are launching an Environment Award Scheme (from February to May) which will entail running several environmental competitions simultaneously in order to reach all segments of the population.

Because our hope for a better environment lies with our citizens, we feel that participation by all the community in this national endeavor is imperative. We also feel that strong support from all the media, will ensure that everyone knows about the Award Scheme, and thus there will be greater participation.

We are kindly requesting your cooperation in running this competition, and would like to give you details of the various competitions, and plan with you and with other agencies of the public media, how best to publicize the award scheme.

By this letter, we invite you (or your designated representative) to a publicity meeting to be held on ____ (day/date)_____ at ____ (time)_____ at ____ (venue)_____.

Thank you very much for your cooperation. We look forward to seeing you at the meeting.

Yours sincerely,

for: Executive Director
National Environment Agency

(Suggested letter to invite representatives of institutions and organizations with field extension services, to a meeting to seek their cooperation with the Award Scheme)

NATIONAL ENVIRONMENT AGENCY

(Name of Extension/Communication Service, including Peace Corps)
(Address)

Dear Sir,

National Environmental Award Scheme

In an effort to help achieve the Gambia Environmental Action Plan (GEAP) objective to promote environmental awareness through popular participation, we are launching an Environment Award Scheme (from February to May) which will entail running several environmental competitions simultaneously in order to reach all segments of the population.

The protection and rehabilitation of our environment starts with raising awareness. The greater the number of people who can be reached and sensitized, the quicker we will see positive changes.

Through your extension/outreach services, you are reaching many people throughout the country. Thus, we are kindly requesting your assistance in publicizing the Award Scheme and in assisting people to submit entries and to participate in this event.

By this letter, we are inviting you (or your designated representative) to a meeting to provide you with details of the various competitions, and to discuss and jointly plan how best to disseminate this information and promote participation.

The meeting will be held on (date) at (time) at (venue).

Thank you for your cooperation. We look forward to seeing you at the meeting.

Yours sincerely,

for: Executive Director
National Environment Agency

ANNEX B
NAMES OF PERSONS AND ORGANIZATIONS CONTACTED

1. Government Organizations

National Environmental Agency (Office of the President)

Ms. Ndey Isatou Njie
Executive Director

Mr. M. Barrow
Division Director

Ms. Ndey Sireng Jobarteh
Environment Specialist

Ms. Fatou K.S. Bandem
Documentalist

The Women's Bureau (Office of the Vice President)

Mr. Hassan Sallah
Education & Communication Officer

Ministry of Natural Resources

Mr. Foday Bojang
Director of Forestry

Mr. N. Njie
Principal Conservation Officer
Wildlife Department

Dr. A. Camara
Director, Wildlife Department

Mr. Kebba S. Badgie
Personnel and Training Officer

Ministry of Agriculture

Mr. Baboucar Manneh
Assistant Director
Dept. of Agricultural Services

Mr. Sheriff S. Sima
Head, Agricultural Communications Unit

Mr. John Fye
Director
Soil and Water Monitoring Unit

Mr. Babou M. Camara
Conservation Officer
Soil and Water Monitoring Unit

Mr. Njagga Njie,
Wildlife Conservation Officer

Mr. Lamin Gassama
Education Extension Officer

Ministry of Education

Ms. Ramatulie Secka
Deputy Chief Education Officer, Schools

Ms. Isatou Ndure
Head of the Curriculum Research & Development Center

Ms. Emily Sarr
Head Early Childhood Education

Mr. William Heaney
Education Adviser
(ODA U.K. Projects Coordinator)

Mr. George P. Dunn
Head Teacher
Methodist Primary School

Ms. Mary Dunn
Deputy Head
Wesley Primary

Mr. S. Kinteh
Director, Non-Formal Education

Mr. M.K. Touray
Senior Education Officer
(Inspectorate)

Mr. Alien S.M. Conteh
Senior Education Officer
(Inspectorate)

Ministry of Health

Mr. E.J. Samateh
Principal Public Health Officer

Mr. Janko Jimsara
Assistant Public Health Officer

Mr. S.O. Dibba
Head, Health Education Unit

Ministry of Information

Mr. Ebrima Sagnia
Director

Ministry of Local Government and Land

Mr. M. Kuyateh
Director of Community Development

Mr. Toure
Assistant Director of Community Development

Mr. Bernhard K. Weihs
Senior Physical Planning Officer

Gambia College

Dr. Yahya E. Bojang
Vice Principal

Mr. Lamin M. Ceesay
Head, Department of Social and Environmental Studies

Gambia Technical Training Institute (GTI)

Mr. M.A. N'jie
Director

Mr. Ian Philip
Deputy Director

Mr. P.D.A. Cole
Deputy Director/Vocational Coordinator

2. International Agencies and Projects

United States Agency for International Development (USAID)

Ms. Bonnie Pounds
Mission Director

Ms. Christine Elias
Project Manager
Agriculture and Natural Resources Project

Mr. Gary Cohen
Agriculture Officer

Ms. Nancy McKay
Program Officer

Ms. Nancy Sheehan
Land Tenure Center

Agricultural and Natural Resources (ANR) Project

Dr. Amare Getahun
Senior Manager
Natural Resources Group (IRG)

Dr. Kjell A. Christophersen
Consultant & Senior Economist
Natural Resources Group (IRG)

United States Peace Corps

Mr. Wayne Nisheck
Director

Mr. Ted Wittenburg
Associate Director

Ms. Yama Jack
Associate Director/Health

Mr. Sam Cole
Training Officer

Ms. Beaurice A. Prom
Resource Center Manager

Ms. Amy Cameron, (PCV)
Teacher, St. Edwards School

Mr. Kevin Connor (PCV)

Education and Extension Officer

United Nations Development Program (UNDP)

Mr. Lare M. Sisay
Program Officer (Econ)

Ms. Fatoumata Tambajang
Program Officer, Gender & Development

World Bank Women in Development (WID) Project

Mr. Foma Ceesay
Acting Project Manager

3. Non-Governmental Organizations

Action Aid

Mr. Kekoto Maane,
Senior Education Adviser

Catholic Relief Services

Mr. Stephen Hilbert
Country Representative

Solomon Owens
Project Supervisor

Foundation for Research on Women's Health, Productivity
and Environment

Ms. Safiatou Kassim Singhateh
Executive Director

Gambia Family Planning Association

Mr. Buba Joof
Program Director

Mr. Yankuba Dibba
Program Officer IEC

Gambia Teachers Union

Mr. M. Tamsir Jallow
General Secretary

Save the Children, USA

Ms. Diane Nell
Field Office Director

Mr. Steve Groski
Project Coordinator, OFPEP

Worldview International

Mr. Nimal Martinus
Director

The Association of Non-Governmental Organizations (TANGO)

Dr. Burang Goree Ndiaye
Executive Secretary

Ms. Fatma Forster
Program Officer

Chimpanzee Rehabilitation Project

Ms. Janis Carter
Director

ANNEX C
EE MATERIALS FOR NEA DOCUMENTATION CENTER

The materials listed below were obtained during the consultancy, and deposited in the NEA Documentation Center. They are listed as they are now catalogued in the Center.

1128, Insect - Borne Diseases, Banjul, The Gambia, Department of Education, 1987, 9983850206, 12p. - illus. - 20cm. (2 copies), BPMRU, ENVIRONMENT EDUCATION/insect - borne diseases

1129, Some Trees, Shrubs and Climbers of Bijilo Forest Park, Banjul, The Gambia, Department of Forestry, 16p. - 20cm., BPMRU, ENVIRONMENT EDUCATION/trees/ shrubs/climbers/forest park/Bijilo/Gambia

1130, Tree Planting Guide, Banjul, The Gambia, Methodist Mission, 14p. - illus. - 29cm., BPMRU, ENVIRONMENT EDUCATION/tree planting

1132, The Herdsman, Banjul, The Gambia, Department of Education, 1987, 9983850184, 18p. - illus. - 20cm., BPMRU, AGRICULTURE/farming

1133, Townsend, A., Health Lessons for Primary 2, Banjul, The Gambia, Action Aid, 1983, 39p. - 20cm., BPMRU, ENVIRONMENT EDUCATION/human health/health lessons

1134, Welty, C, Common Insects of The Gambia, Banjul, The Gambia, BPMRU, 1984, 46p. - illus. - 29cm., BPMRU, ENVIRONMENT EDUCATION/insects/The Gambia

1135, Welty, C, Principles of Pest Management, Banjul, The Gambia, BPMRU, 93p. - illus. - 29cm., BPMRU, ENVIRONMENT EDUCATION/pest management

1136, Master Ceesay A Friend In Need, Banjul, The Gambia, BPMRU, 1990, 9983850354, 18p. - illus. - 20cm., BPMRU, ENVIRONMENT EDUCATION/primary school education

1137, The Good Old Times Back Again, Banjul, The Gambia, BPMRU, 1990, 9983850338, 13p. - illus. - 20cm., BPMRU, ENVIRONMENT EDUCATION/primary school education/ stories

1138, Mosquitoes And Malaria, Banjul, The Gambia, BPMRU, 998385027, 28p. - illus. - 20cm., BPMRU, ENVIRONMENT EDUCATION/mosquitoes/malaria/human health

1139, The Gambia Agriculture: Teacher's Guide, Banjul, The Gambia, Ministry of Education, 1992, 033587782, 90p. - illus. - 21cm., BPMRU, ENVIRONMENT EDUCATION/agriculture

1140, The Gambia Science: Pupil's Book 1, Banjul, The Gambia, Ministry of Education, 1992, 0333585534, 14p. - illus. - 25cm. (2 copies), BPMRU, ENVIRONMENT EDUCATION/science/Gambia

- 1141, The Gambia Social And Environmental Studies: Pupil's Book 7, Banjul, The Gambia, Ministry of Education, 1992, 0333567161, 153p. - illus. - 25cm. (2 copies), BPMRU, ENVIRONMENT EDUCATION/social studies/environmental studies/Gambia
- 1142, The Gambia Basic Education Course Social Studies And Environmental Syllabus Grade 1 - 6, Banjul, The Gambia, Ministry of Education, 1992, illus. - 29cm., BPMRU, ENVIRONMENT EDUCATION/social studies/environmental studies/Gambia
- 1143, The Gambia Basic Education Course: Agricultural Science Syllabus Grade 7-9, Banjul, The Gambia, Ministry of Education, illus. - 28cm., BPMRU, ENVIRONMENT EDUCATION/agricultural science/Gambia
- 1144, The Gambia Basic Education Course: Primary Physical and Health Education Syllabus Grades 1 - 6, Banjul, The Gambia, Ministry of Education, illus. - 28cm., BPMRU, ENVIRONMENT EDUCATION/physical and health education
- 1145, The Gambia Basic Education Course: Draft Science Syllabus Grades 1 - 6, Banjul, The Gambia, Ministry of Education, 11p. - illus. - 28cm., BPMRU, ENVIRONMENT EDUCATION/science syllabus
- 1146, The Gambia Basic Education Course: Science Syllabus Grades 7 - 9, Banjul, The Gambia, Ministry of Education, illus. - 28cm., BPMRU, ENVIRONMENT EDUCATION/ science syllabus
- 1155, Training Information For The Protection Of The Environment: Teacher's Manual, The Gambia, BPMRU, 39p. - illus. - 21cm., BPMRU, ENVIRONMENT EDUCATION/training information/environmental studies
- 1156, Teachers In The Training Information For The Protection Of The Environment: Teacher's Guide 2, The Gambia, BPMRU, 26p. - illus. - 21cm., BPMRU, ENVIRONMENT EDUCATION/training information/environmental studies
- 1157, Our Natural Environment: Teacher's Guide Book 1, The Gambia, BPMRU, BPMRU, ENVIRONMENT EDUCATION/environmental studies/natural environment
- 1158, The Gambia Social And Environmental Studies: Pupil's Book 1, Banjul, The Gambia, Ministry of Education, 1993, 0333567102, 36p. - illus. - 25cm., BPMRU, ENVIRONMENT EDUCATION/social studies/environmental studies/Gambia
- 1159, The Gambia Social And Environmental Studies: Pupil's Book 2, Banjul, The Gambia, Ministry of Education, 1993, 0333567110, 44p. - illus. - 25cm., BPMRU, ENVIRONMENT EDUCATION/social studies/environmental studies/Gambia
- 1160, The Gambia Social And Environmental Studies: Pupil's Book 3, Banjul, The Gambia, Ministry of Education, 1993, 0333567129, 60p. - illus. - 25cm., BPMRU, ENVIRONMENT EDUCATION/social studies/environmental studies/Gambia
- 1161, The Gambia Social And Environmental Studies: Pupil's Book 4, Banjul, The Gambia, Ministry of Education, 1993, 0333567137, 76p. - illus. - 25cm., BPMRU, ENVIRONMENT EDUCATION/social studies/environmental studies/Gambia

1162, Pupils's Activity Book 1, The Gambia, TIPE Project, 16p. - illus. - 21cm., TIPE Project, ENVIRONMENT EDUCATION/environmental studies

1163, Pupils's Activity Book 2, The Gambia, TIPE Project, 28p. - illus. - 21cm., TIPE Project, ENVIRONMENT EDUCATION/environmental studies

1164, Tree Planting, The Gambia, TIPE Project, 20p. - illus. - 21cm., TIPE Project, ENVIRONMENT EDUCATION/tree planting/environmental studies

1165, Disappearing Forests In The Gambia, The Gambia, TIPE Project, 12p. - illus. - 21cm., TIPE Project, ENVIRONMENT EDUCATION/forest/Gambia/environmental studies

1166, Soils, The Gambia, TIPE Project, 19p. - illus. - 21cm., TIPE Project, ENVIRONMENT EDUCATION/soil/environmental studies

1167, Nature's Animals, The Gambia, TIPE Project, 28p. - illus. - 21cm., TIPE Project, ENVIRONMENT EDUCATION/animals/environmental studies

1168, Anaemia Is Dangerous Especially During Pregnancy, The Gambia, WID, 1993, 4p. - illus. - 21cm., ENVIRONMENT EDUCATION/human health/anaemia/environmental studies

1169, How To Control And Use A 3 Stone Kumba Gaye Stove, The Gambia, BPMRU, 9983850133, 35p. - illus. - 22cm., ENVIRONMENT EDUCATION/energy/stove/environmental studies

ANNEX D. BIBLIOGRAPHY

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- Ceesay, Lamin M. Desertification in The Gambia: A Study Unit. Thesis submitted for Master of Arts, Dalhousie University, Canada. May, 1993.
- Department of Central Statistics. The Republic of The Gambia. Population and Housing Census 1993. Provisional Report (1) Ministry of Finance and Economic Affairs., June, 1993.
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- Stanton, David (Ed.) Worldview Report 1991 - 1992. Worldview International Foundation.

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